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THE ECUADORIAN SOCIAL SECURITY INSTITUTE (IESS): ECONOMIC EVALUATION AND OPTIONS FOR REFORM

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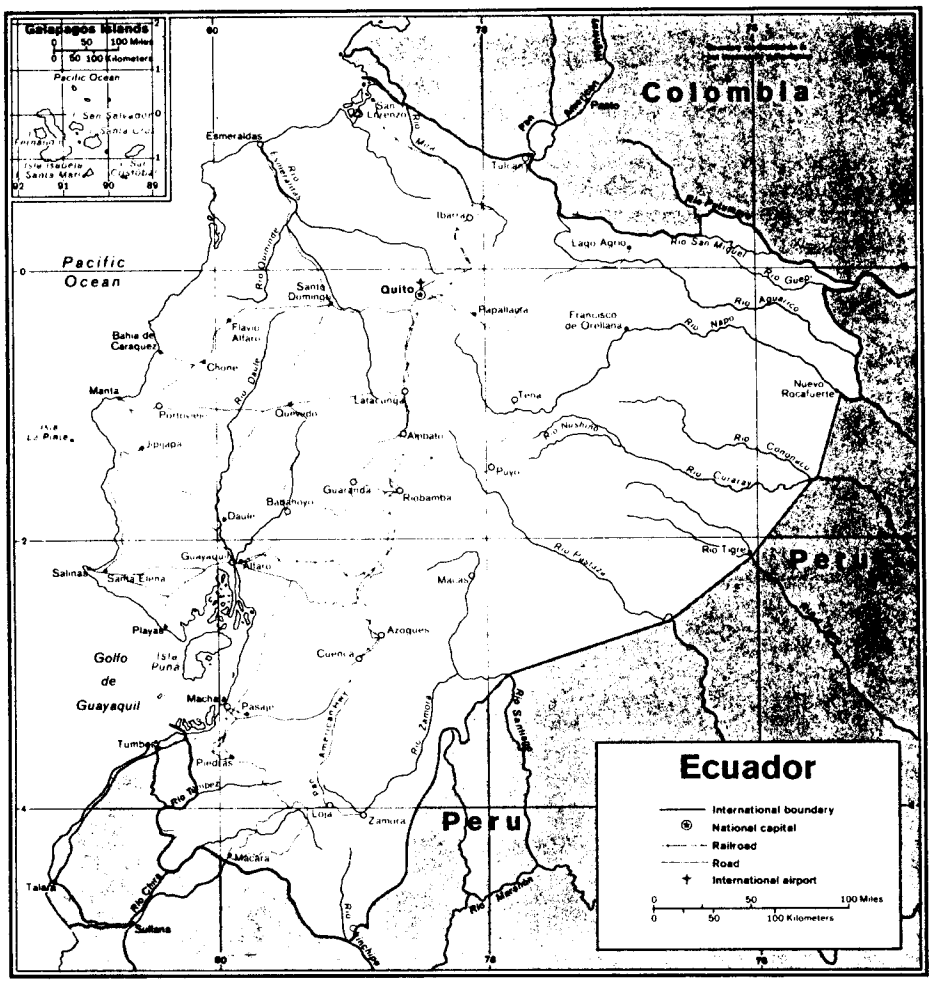
ABSTRACT

This report analyzes the economic-financial situation of the Ecuadorian Institute of Social Insurance (IESS), including its organization, population coverage, financing, expenditures, and financial equilibrium, and advances policy recommendations and options for the future. Although all IESS programs are covered herein, the report concentrates on the two most important: pensions and maternal health care. The final section of the report provides policy guidelines for the future reform of the social security system, as well as a research agenda for the future. The author recommends reform of the IESS through the creation of a mixed system combining a reformed IESS, that would provide basic benefits, with private sector participation, that would provide supplementary benefits.

MAP OF ECUADOR



Source: United States Department of State, Background Notes, 1987.

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AFP	Administradores de Fondos de Pensiones (Pension Fund Administrative Corporation), of Chile
BPS	Banco de Prevision Social (Social Security Bank)
CONADE	Cooperacion Nacional de Desarrollo Economico, of Chile
CCSS	Costa Rican Social Insurances Fund
EAP	Economically-active population
ECLAC	Economic Commission for Latin America and the Caribbean
FONASA	Fondo Nacional de Salud (National Health Fund), of Chile
GDP	Gross domestic product
HMO	Health Maintenance Organization
IDSS	Instituto Dominicano de Seguro Social (Dominican Institute of Social Insurances
ISAPRE	Instituciones de Salud Previsionales (Social Security Institutes) of Chile
IESS	Instituto Ecuatoriano de Seguridad Social (Ecuadorian Social Security Institute)
ILO	International Labor Organization
INP	Instituto Nacional de Pensiones (National Institute of Social Insurance)
IPSS	Instituto Peruano de Seguridad Social (Peruvian Social Security Institute)
ISS	Instituto de Seguro Social (Institute of Social Insurances), of Colombia
LAC	Latin America and the Caribbean
MOH	Ministry of Health
NPC	National Plan of Control
PAHO	Pan American Health Organization
SPS	Supplementary pension plans
SSC	Seguro Social Campesino (Peasant Insurance Fund)
USAID	United States Agency for International Development
WHO	World Health Organization

EXECUTIVE SUMMARY

INTRODUCTION

This report analyzes the current economic-financial situation of the Ecuadorian Institute of Social Insurance (IESS), including its organization, population coverage, financing, expenditures, and financial equilibrium, and advances policy recommendations and options for the future. Although all IESS programs are covered herein, the report concentrates on the two most important: pensions and maternal health care. These two programs, combined, absorb approximately 90 percent of IESS benefit expenditures.

Two studies prepared by the author for the World Bank in 1984 and 1989 [49, 52] antecede this report. The latter relies on abundant new information and statistics gathered in Quito in May 1992, as well as two dozen interviews conducted in that city with officials of IESS and other government institutions, members of the USAID-Quito Office, leaders of private-sector organizations, and social security experts. The final section of the report provides policy guidelines for the future reform of social security, as well as a research agenda for the future.

EVOLUTION AND ORGANIZATIONAL STRUCTURE

Ecuador's social security system HAS evolved in a fragmented manner. Although currently unified under the Ecuadorian Institute of Social Security (IESS), today it is characterized by a significant degree of stratification and differences among the insured groups. The IESS administers numerous programs including pensions, maternal health care, occupational risks, severance pay, and funeral aid. The 1980s saw important changes in the system as administrative, financial and legal processes were standardized and decentralized. Most of these changes were not well planned, however, producing disorganization and failing to replace the old structures or eliminate differences among groups.

POPULATION COVERAGE

In 1991 IESS covered 17 percent of the total population and 28 percent of the labor force of Ecuador, and the country ranked among the five countries with lowest social insurance coverage in Latin America and the Caribbean (LAC). Also, beneficiary coverage for dependents of the insured in Ecuador is one of the two most restricted in LAC. The incorporation of a greater percentage of the labor force is obstructed, furthermore, by a relatively small urban formal salaried labor force and a large informal sector. The best organized and most powerful economic activities and occupations enjoy the highest degree of coverage. The growth of Peasant Insurance, an IESS fund from which the insured can withdraw contributions, is the most dynamic factor in expanding coverage. (By the mid-1990s, it will represent a majority of the total

insured within IESS.) Although Peasant coverage has significantly improved protection in most provinces, it still covers only 14 percent of the total rural population. Despite advances in coverage, if the 1980s trend continues, it would take half a century to reach universal coverage of the total population in Ecuador.

FINANCING: WAGE AND OTHER CONTRIBUTIONS

IESS is financed by wage contributions from insured and employers (51 percent of total IESS revenue in 1990), contributions from the state as a third party (9 percent in 1990), investment returns (27 percent in 1990), and other sources (13 percent in 1990). The percentage of total contributions to GDP was 3.0 percent for 1989 and 2.8 percent for 1990.

The 20.5 percent of an insured individual's wages that make up part of the general compulsory coverage system (private sector insured 9.25 (employer 11.25) percent of wages, public sector insured 11.25 (employer 9.25)percent of wages), is the tenth highest among 30 LAC countries in 1989/1990; countries with the highest contribution percentages either have universal population coverage or a much higher degree of coverage than Ecuador. Despite a gradual process of standardization of contributions since 1988, in 1992 a dozen different rates were still in effect and the extreme ratio between them was more than 2:1. Legally, the state should support the IESS by paying 40 percent of the cost of pensions in the general system; virtually all costs of armed forces' pensions, and the cost of additional pensions for several groups of public employees, as well as making a small contribution to Peasant Insurance. From the early 1960s to the late 1980s, the state failed to honor such obligations, accumulating a debt of U.S.$329 million by the end of 1991 (this is 65 percent of the U.S.$505 million Total Net Assets invested as of 1990). Because of high inflation in the 1980s, the real value of that debt shrunk by 76 percent in 1980/1988 and by another 49 percent in 1988/1991.

Reportedly, the state has paid all its obligations since 1989 but has not signed an agreement yet to pay the debt accumulated in 1986/1988. (There are 12 agreements signed to pay the state debt accumulated in 1964/1985). Delay of payments by private enterprises and public institutions other than the central government is widespread: it reached U.S.$39 million in 1990, despite a serious effort to reduce it since 1988. The total combined debt to IESS was U.S.$368 million in 1991 and was rapidly losing its real value.

FINANCING: PORTFOLIO INVESTMENT

IESS net assets totaled U.S.$505 million in 1990 despite losing about half of their real value in the 1980s due to inflation and poor investment policies. Invested assets equalled 1.4 percent

of GDP in 1990. During most of the 1980s the portfolio was heavily concentrated— 50 to 88 percent— in instruments that favored the insured— mortgage and personal loans to the insured not indexed to inflation, and free loans to the deficitary IESS maternal health scheme. These instruments had negative real yields, however, which worsened with rapidly increasing inflation. Since 1988 there has been a shift to more profitable instruments —public and mortgage bonds and short-term investments— which have produced better yields; in addition, conditions for loans to the insured have been tightened. Despite these improvements, the real annual yield averaged -14 percent in 1978/1991, and -25 percent in 1989/1991 due to high rates of inflation. The huge debt to the IESS combined with an inefficient investment policy and rising inflation has gradually decapitalized IESS reserves.

EXPENDITURES: BENEFITS

The real current expenditure of IESS declined 34 percent in 1980/1990, but a breakdown of these figures reveals that benefit expenditures decreased 62 percent while administrative expenditures increased 93 percent. Although as a percentage of GDP IESS expenditures declined from 3.8 to 2.8 percent in the same period, Ecuador was still tenth among LAC countries while ranking sixteenth in terms of population coverage. The disparity between expenditure and population coverage is explained by high administrative expenditures and generous benefits and entitlement conditions.

IESS general age of retirement is among the lowest third in LAC. This is true as well of the average period of retirement. Certain privileged groups enjoy even lower ages of retirement as well as supplementary seniority pensions. The maternal health program grants generous benefits, such as dental prosthesis and contact lenses, as well as medical treatment abroad when not available at home. (In contrast, coverage of dependents is the second worst in Latin America). The value of real pensions increased 73 percent in 1970/1980 —one of the most generous adjustments in the region— but the national economic recession and the IESS financial crisis forced a 52 percent cut in real pensions in 1980/1991.

There are significant inequalities in benefits: the military pension is twice as high as that of private employees, and the ratio of health expenditures and hospital beds per capita between the armed forces and the Ministry of Health (MOH) is five to one. Geographical inequalities are important too. The poorest provinces do not have any hospitals, and the ratio of IESS hospital beds per 1,000 insured among provinces ranges from four to one.

EXPENDITURES: ADMINISTRATION

The only IESS budgetary item that grew in real terms in 1980/1990 was administrative expenditures. All the rest declined,

hence the bureaucratic expansion reduced available resources for benefits and investment. The administrative share took more than half of total current expenditures in 1987, and although it declined to 41 percent in 1990, it was still among the three highest in LAC. Personnel increased 60 percent in 1980/1991; the ratio of employees per 1,000 insured peaked at 15 in 1981 and declined to 10 in 1991. But if the insured and personnel of Peasant Insurance are excluded, the 1991 ratio was 13.4, one of the highest in LAC. There are 108 unions within IESS which have increasing power to extract privileged concessions from the central administration at the expense of the insured.

Administrative deficiencies in IESS include abundant and complex legislation, excessive central control despite "regionalization," lack of an integrated accounting system, cumbersome and lengthy bidding procedures, the expansion of computer equipment and personnel without a significant improvement in administrative efficiency, and the lengthy bureaucratic process involved in granting pensions.

The IESS health policy is not adapted to the needs of the country. It concentrates on urban areas, curative medicine and the productive age-group with lower health risks. IESS health-care is not only inefficient but expensive, its costs per beneficiary being several times higher than those of Peasant Insurance and the MOH. Universalization of IESS coverage with the current system would cost from 23 to 34 percent of GDP, an unfeasible target. Out of 11 hospitals under construction since 1985, only one was fully operational in 1992 and only one (not yet functioning) was justified in terms of population needs and available facilities. Coordination of all public health facilities and allocation of resources to the most needed groups/areas would maximize output from existing resources, reduce costs and allow for expanded coverage of the population.

FINANCIAL AND ACTUARIAL EQUILIBRIA

The inadequate data available show that all IESS programs generated a operating surplus until 1979, except in the case of the military police, but that in 1980/1990 maternal health, military police and pension programs suffered substantial deficits (and particularly the first two). Surpluses generated in severance and other programs were used to cover programs that had compiled a total deficit of 70 billion sucres (U.S.$90 million). Although the IESS global balance was positive throughout the 1980s, in constant sucres the financial surplus fell 77 percent. In 1974/1990 IESS total capital reserves, in constant sucres, shrunk 46 percent; the pension and military police reserves decreased 78 percent, and surplus-generating programs (such as severance, additional and contracted insurance), also suffered declines ranging from 5 to 26 percent. Neither the pension nor the maternal health schemes have had adequate actuarial balances for a dozen years (an actuarial

study of the pension program is scheduled for 1993); only the severance and funeral-aid programs have been subjected to recent actuarial reviews.

Despite the dearth of actuarial studies, there is no doubt that the pension program suffers an enormous actuarial deficit and that the contribution of the maternal health program must be increased. The maternal health program is presently financed at 5.8 percent of total program contributions, but IESS estimates this should be 8.4 percent, a 2.6 percentage point (45 percent) increase to cover its expenditures. Declining real surpluses of the financially solid but minor programs will be unable to continue subsidizing the growing deficits of the most important IESS programs. Various projections indicate that between 1993 and 1995 the institution will confront an overall financial deficit and the most serious crisis in its history.

RECOMMENDATIONS AND OPTIONS FOR REFORM

Three options for reform are summarized, based on the experience of several Latin American countries. The first is to maintain the IESS but to institute drastic reforms: to reduce its expenditures, increase its revenues and restore its financial/actuarial equilibria, thus allowing expanded population coverage.

The second option is to create a mixed system combining a reformed IESS, that would provide basic benefits, with private-sector participation. For pensions, a compulsory supplementary scheme could be adopted, based on capitalization of the scheme and administered by private corporations alone (as proposed in Argentina and Colombia), or by the IESS and other public institutions, as in Uruguay.

This reform would have the following advantages:

(i) reductions of insured's payroll contribution;
(ii) higher benefits and easier as faster granting of pensions;
(iii) eradication of privileged regimes (except for armed forces);
(iv) pensions calculated on a longer work life of worker;
(v) recognition but no transfer of previous contributions from the old scheme; (vi) state guarantees to the insured;
(vii) eventual elimination of deficit.

But there are disadvantages to the reform:

(i) many of those registered may not contribute to the private scheme, and overall effective population coverage may decline;
(ii) coverage of the informal groups of the labor force may be minimal (i.e., a majority of the labor force in Ecuador - employees in microenterprises, self-employed, and unpaid family workers);

(iii) administrative costs in the private sector may be higher than in the old system;
(iv) experience in Chile indicates that the private sector system may not be as competitive as claimed;
(v) doubts about the ability of the domestic capital market to absorb the growing funds;
(vi) dearth of overall system actuarial report require use of incomplete data for projections of future costs.

The third option, full privatization, has been tried so far by Chile alone and limited to pensions: a compulsory, capitalized pension plan administered by private corporations is substituting for the old public system which is now closed. Although there are many advantages to this approach, it also has important negative features, the most relevant being its huge costs and the protracted financial burden it imposes on the state. These problems are seen by some experts as deterrents to application of the Chilean approach in Uruguay and Colombia. The Chilean model would face additional obstacles in Ecuador, among them the low population coverage and the apparent inability of the private sector to absorb the transfer of the insured, as well as a high premium which would impede the expansion of coverage.

The second option (mixed system) appears in principle to be the most suitable for Ecuador, but more research is needed to reach a final decision. Even if a technical consensus is developed on the type of reform needed, widespread popular support and a strong commitment from the new government would be required.

Research and Technical Agenda

Recommended technical tasks related to IESS include:

- The development of actuarial and other statistics;
- The development of an integrated accounting system;
- The training of personnel; and
- The design of a massive educational campaign to sell the reform.

Research tasks include:

- The development of a simulation model to estimate costs of a reformed system;
- A study of national health resources and needs as well as the costs of expanded health coverage;
- An analysis of the capacity of the private sector and the capital market to cope with the privatization of pensions and health care; and
- An opinion survey of leadership and the overall population concerning proposed reforms.

1.0 INTRODUCTION

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EXHIBIT 1

SUMMARY OF KEY STATISTICS ON THE IESS

Percentage of total population covered (1991)	**17.2**
***Ibid*, rank among 18 LAC countries (highest coverage, 1985-88)**	**16**
Percentage of EAP covered (1991)	**28**
Percentage of rural population covered by Peasant Ins. (1990)	**14**
Ratio of coverage civil servants/agriculture (1981)	**15:1**
Ratio between best and worst covered province (1990)	**4.5:1**
Total wage contribution in general system (1992)	**20.5**
***Ibid*, Ecuador rank among 30 LAC countries by highest %, (1989/1990)**	**10**
Partial state debt to IESS in million US dollars (1991)	**32.9**
Percentage lost in real value of state debt to IESS (1964/1988)	**-76**
Employer's debt for *mora* to IESS in million US dollars (1990)	**39**
Total IESS assets in million US dollars (1990)	**505**
Invested assets as a percentage of GDP (1990)	**5**
Percent decline in real value of IESS invested assets (1981/91)	**-58**
Average annual real yield (%) of IESS invested assets (1978/1991)	**14.2**
Expenditures as percent of GDP (1980 and 1990)	**3.8 & 2.8**
***Ibid*, Ecuador rank among 28 LAC countries by highest % (1986)**	**10**
Overall age of retirement IESS general system, in years for both sexes (1992)	**55**
***Ibid*, Ecuador rank in LAC by lowest age of retirement (1990)**	**3**
Average period of retirement in years (1989)	**20-21**
***Ibid*, rank in LAC by longest period (1989)**	**3**
Change (%) of the value of IESS average real pension (1970/1980 & 1980/1991)	**+73 & -52**
Ratio of military average pension to private sector pension (1989)	**2:1**
Life expectancy at birth (1985)	**64.3**
***Ibid*, rank among 25 LAC countries (by highest years 1985)**	**15**
Ratio of health expenditures & hospital beds per capita between armed forces and MOH (1985)	**5:1**
Extreme differential ratio of IESS hospital beds per 1,000 among provinces (1989/1990)	**4:1**
Administrative expenditures as percent of current expenditures (1990)	**40.9**
***Ibid*, rank among 21 LAC countries by highest % (1980/1987)**	**3**
Ratio of per capita health care cost between IESS and Peasant Insurance (1986)	**5:1**
Projected cost of expanding IESS coverage to total population based on current model as % of GDP, (1987)	**23-34**
Percentage decline of pension program reserves in constant sucres (1974/1990)	**-78**
***Ibid*, military-policy**	**-79**
Cumulative deficit of maternal health program in 1980/1990 (U.S. million dollars)	**62**

2.0 SUMMARY OF IESS EVOLUTION AND CURRENT ORGANIZATION

2.1 EVOLUTION

Social insurance evolved in Ecuador in a gradual and fragmented manner, creating a stratified system along occupational lines. The most powerful occupational groups were the first to obtain coverage, while the least influential groups were the last to be covered or still remain unprotected.

Exhibit 2 summarizes the historical evolution of the system. At the beginning of the century, only military officers were eligible for some pensions; in addition, some pensions were arbitrarily granted by the government without previous contributions. In the early 1920s, pensions were introduced for teachers and workmen's compensation for wage earners. In 1928 and 1937, two major groups gained coverage (pensions, funeral aid and maternal health benefits, but through separate funds): (a) public sector employees, and (b) white- and blue-collar workers in the private sector. The National Institute of Social Insurance (INP) was also created at that time to handle general policy and supervise the system. In the 1940s, a law was passed to regulate the system; however, the two social insurance funds retained their independence and railroad workers began to contract with the INP for better conditions than those in the general system. In the 1950s, the various insured groups separately received severance pay. In 1963/1964, the public and private funds were unified under one central administration and the workmen's compensation program was expanded and incorporated into the INP. In 1970, the INP was transformed into the Ecuadorian Institute of Social Security (*Instituto Ecuatoriano de Seguridad Social*: IESS) which currently administers the whole system. From the mid-1960s to the end of the 1980s, several groups were gradually incorporated into the system (artisans, domestic servants, professionals, artists, peasants, construction workers, taxi drivers, agricultural wage earners, the self-employed) but divergent conditions and sometimes only through voluntary affiliation.

2.2 CURRENT ORGANIZATION

The IESS manages several programs: old-age, disability and survivor pensions; maternal health; occupational accidents and diseases; funeral aid; and severance pay. In addition, the IESS administers the Peasant Insurance fund (*Seguro Social Campesino*: SSC), from which the insured can withdraw contributions (*fondo de reserva*), as well as special programs for diverse groups of insured, loan programs, etc.

The two major groups of insured (in the public and private sectors) are legally under IESS administration. In practice, they remain separated (in "sections" A and B) and have divergent contributions and conditions for entitlement. The 1963 "merge" was achieved without previous planning or preparation and produced administrative chaos; it also left intact the privileged treatment enjoyed by the military, civil servants, and other special groups. The two major funds became quasi-independent departments, lacking overall coordination, and the "separate fund mentality" preserved the separate administration. This situation still largely continues: an IESS study acknowledged in 1988 the continued existence of separate legal, administrative and accounting processes at the two entities, as well as diverse contributions

EXHIBIT 2

EVOLUTION OF SOCIAL INSURANCE LEGISLATION BY RISKS AND GROUPS COVERED IN ECUADOR: 1900/1991

Year	Risks Protected	Covered Groups
Early 1900s	DS	Military officers
1921	OR	All workers (wage earners)
1923	ODS	Teachers
1928	ODS, FA	Public Fund for civil servants (state, municipalities), banking and insurance employees and armed forces
1935-37	All system	Creation of INP; also addition of HM to public fund
1937	ODS, HM, FA	Private fund for white- and blue-collar workers
1940	Improved benefits	Railroad workers
1942	ODS, HM, OR, FA	New system for all wage earners
1948-60[a]	SP	Military, teachers, civil servants, banking and municipal employees, white- and blue-collars, policemen
1963	All system	Merge of public, military and private funds
1964	OR	Expansion and incorporation in INP
1964-65[a]	ODS, HM, FA	Artisans, domestic servants, self-employed professionals
1966-67	ODS, HM	Artists, clergy, sportsmen
1967	ODS, HM, OR	Voluntary insurance (not enforced immediately)
1968, 1973, 1981	OD, HM, FA	Peasants and their dependents in selected geographical areas (Peasant Insurance)
1970	All system	INP becomes IESS
1971	ODS, HM, FA	Construction workers
1979	ODS, HM, FA	Salaried artisans and apprentices
1980	ODS, HM, FA	Self-employed artisans and apprentices, salaried agricultural sugar workers
1982	ODS, HM, FA	Self-employed artists and associated taxidrivers
1984	ODS, HM	Other self-employed (voluntary)
1986	OD, HM, FA	Salaried agricultural workers, artisan fishermen, voluntary insurance for adults (not enforced) informal marginal workers (not enforced)
1989	OR, FA	Self-employed, domestic servants, artisans
1989	OD, HM, FA	Voluntary for all above 18 years (enforced); addition of OR to salaried agricultural workers, artisans, domestic servants and self-employed.
1990	SP	Artisans, domestic servants, taxi drivers

[a] Separate legislation for each group.
ODS = old age, disability and survivor pensions; OR= occupational risk insurance; HM = maternal health insurance; FA = funeral aid; SP = severance pay.
Source: 52 updated with 11 and 13.

and benefits among various groups of insured under through contracts with IESS [19]. Two IESS officials reported in May 1992 that, despite the standardization of some contributions and benefits since 1989, information is still gathered separately from 27 to 30 schemes [76].

The private sector of IESS (the original Section A) provides compulsory coverage to white- and blue-collar workers (general system) plus professionals (both salaried and self-employed), artisans, domestic servants, coffee pickers, construction workers, fishermen, clergymen and church workers, and printing and sugarcane workers. (Most of these sub-groups have special regulations.) In addition, this sector offers voluntary coverage (also with special regulations) to artists, taxi drivers, the self-employed, those who cease to be employed in the private sector, and any adult who requests to be covered. Peasants are protected under the Peasant Insurance fund which also administers the program for agricultural wage earners.

The public sector of IESS (the original Section B) provides compulsory coverage to civil servants employed by the state, municipalities, and autonomous institutions (general system) as well as teachers, bank and insurance employees, and railroad, printing, and communication workers (all these with special regulations). The public sector also offers continued voluntary coverage to those who cease to work in the public sector. The social insurance fund for the military and the police (*Caja Militar*) is autonomous; hence decisions about the financing and the granting of benefits are done independently. But IESS is charged with collecting contributions and paying cash benefits.

In 1987 the Ecuadorian social security legislation had become an unpenetrable labyrinth of often contradictory and arbitrary regulations [61]. According to an IESS report, the Social Security Code not only failed to systematize the legislation but, by its rigidity, impeded the process of updating and adapting it to social and economic changes, thus inducing the proliferation of "outside" laws [19]. In 1989 the IESS undertook a series of steps to cope with the juridical maze, but the planned "normalization" suggested that legal multiplicity and complexity would remain. The reform was designed to draft a new social insurance law, a code containing all the statutory rules, and a code of 714 administrative resolutions, and to update and reduce regulations from 190 to 46. (Only this latter was expected to fill three volumes) [23]. In May 1992 only minor improvement had been made and the major problems remained.

In the mid-1980s the IESS undertook to decentralize its administrative functions with the creation of eight regional divisions. A plan and recommendations to "regionalize" the process were not implemented, however, resulting in disorganization, disarticulation, and a failure to achieve the plan's objectives.

By 1989 the process of awarding benefits throughout the country was managed from the centralized archives in Quito, while six of the regions operated without approved "organic structures" due to obsolete centralized structures [19, 20]. Interviews with IESS officials and outside experts in 1992 indicated that "regionalization" was not working but had resulted in the hiring of considerably new personnel [74, 85].

IESS has its own health facilities (e.g., hospitals, rural posts, medical staff, pharmacies). These constitute the third or fourth largest health network in Ecuador, although in isolated areas IESS subcontracts for the use of existing facilities from other institutions. The MOH has the largest network of health facilities in the nation, although not the best in quality; it also manages preventive medicine. The Ministry of Defense administers hospitals and other facilities —reportedly the best in Ecuador— for military personnel and their dependents. Other health facilities are operated by charity institutions (*beneficiencias*, which are third in number of beds) and municipalities. The private sector ranks second in the number of hospital beds and third in the number of physicians.

There is no coordination among the various public health institutions in Ecuador; hence, duplications and significant gaps are common, especially between IESS and MOH facilities. In 1980, a National Health Council was established, chaired by the minister of health and made up of representatives of all the public-health institutions and physicians' associations in the country. However, no significant action has been taken by the Council to achieve effective coordination between the various public health groups and the situation remains basically unchanged. The two-year social security plan (1983/1984) prepared by CONADE and the IESS referred to the lack of coordination within IESS health units and proposed a National Health Plan— but one limited to the IESS and without any reference to the MOH or other public facilities. In 1989 the MOH and IESS signed agreements to coordinate their services, expand population coverage and allow the potential transfer of users, but little improvement has materialized [2]. Within the IESS, there is no integration among the health programs of maternal health, occupational risks, and Peasant Insurance.

In summary, positive steps have been taken to unify administrative, financial, and legal procedures ar the IESS, as well as to decentralize its functions. Most of these processes, however, have not been conducted in a well-planned manner and have not been thoroughly implemented. This has caused disorganization and has left part of the old structures. Furthermore, significant legal, financial, and administrative differences still persist among the various insured groups. In the health sector, a virtual lack of coordination exists among public facilities.

3.0 POPULATION COVERAGE

This section evaluates the IESS legal and statistical population coverage, contrasting it with that of other countries in the region and analyzes inequalities of coverage and barriers to its growth.

3.1 LEGAL COVERAGE

The majority of the salaried labor force as well as a few pockets of the self-employed are covered by the law on a compulsory basis. Most of the self-employed have the option of joining the IESS voluntarily. Legally excluded are unpaid family workers, workers in the home and most temporary workers, and the unemployed. However, any person 18 years or older is entitled to voluntary coverage. Pensioners are covered under health care. Coverage of dependents of the insured is the most restricted in Latin America only after that of Haiti. Spouses are not entitled to maternal health care, which is only available to the insured female, and then until recently with some restrictions. Children are eligible only when their mothers are insured (an insured father does not convey coverage to his children) and providing they are less than one year of age; until recently they were not entitled to surgery and medicines [9, 19].

The extension of maternal health coverage to the family of the insured has been a legal objective sought since 1944. The Social Security Code enacted in 1972 ordered such an extension, but its application was suspended; the code was re-enacted in 1976, only to be abolished three months later. A new code was drafted in 1980 but was not approved by the Congress. A Decree-Law of 1986 ordered the drafting of a new code that year, but such a mandate was not fulfilled. At the beginning of the 1990s, full health care coverage was granted to the children of insured females under one year of age, but that was a minor improvement that did not correct the lack of protection of dependents.

IESS offers four types of legal coverage:

1. General compulsory coverage for salaried white- and blue-collar workers in both the private and public sectors (excluded are congressmen and top officials in the executive branch);

2. Special compulsory coverage for university professionals, construction workers, artists, agricultural workers, clergy, self-employed artisans and apprentices, drivers and members of unions, and cooperatives or associations;

3. Special compulsory additional coverage (granting higher pensions and severance pay through contracts with the IESS)

for teachers and railroad, printing, mining, and communication workers; and

4. Voluntary coverage for all adults who are not otherwise covered and for those who have lost their coverage [23].

Legal incorporation of special groups is contingent upon the enactment of special IESS regulations which have not always materialized. For instance, by May 1992 the legal incorporation of the informal sector (*Fondo Marginal*) legally mandated in 1986 had not been regulated by the IESS.

3.2 STATISTICAL COVERAGE

Exhibit 3 presents my own estimates of statistical coverage of the total population and the economically active population (EAP). The number of active insured is somewhat inflated because the registry is not up-to-date; a new computerized system has eliminated those who have died, left the labor force, or are unemployed since 1988 but were not working prior to that date. In addition, an unknown number of persons have double coverage. On the other hand, Exhibit 2 excludes about 30,000 military men and 12,000 policemen, plus voluntary and self-employed. The most accurate data probably are for the passive insured (pensioners) after 1975. The least reliable data pertains to those in the Peasant Insurance fund, particularly dependents who have been probably estimated as a ratio of active insured (about 4 to 1). Following the 1990 census, a downward adjustment of both the total population and the EAP has resulted in an increase in the percentage of coverage.

In 1965/1991 coverage of the total population increased from 4.8 to 17.2 percent, while coverage of the EAP rose from 12.2 to 28 percent. (If the armed forces and other IESS insured were included, coverage of the total population would increase to 20 and 35 percent, respectively. This increase must be balanced with the overestimation of the active insured already discussed, however.) Coverage of the total population was practically stagnant through the 1950s, being estimated at 3.8 percent in 1950. It grew slowly in the 1960s as new groups were incorporated into the system, accelerated in the 1970s as a result of the Peasant Insurance program, and, after a slowdown in the early 1980s, accelerated again after 1983 through the expanded coverage of peasants and other groups. Coverage of the EAP accelerated in the 1970s but slowed thereafter.

At the beginning and the end of the 1980s, Ecuador ranked sixteenth in terms of total population coverage and fifteenth or thirteenth in terms of EAP coverage within Latin America. Lower percentages of total population coverage were registered only in Honduras, El Salvador, the Dominican Republic, and Haiti [51, 55]. Even at the faster average annual rate of coverage expansion in the

1980s, it would take about half a century for the IESS to reach universal coverage for the total population. A major reason for the low coverage of the total population is the virtual exclusion of dependents; structural reasons to be discussed in the next section explain the low EAP coverage.

3.3 IMPEDIMENTS TO EXPANDED COVERAGE

The low population coverage and its slow rate of expansion in Ecuador are largely determined by the composition of its labor force. In 1980 Ecuador was the country with the second smallest formal-urban sector (22.7 percent) in Latin America and also with the second smallest combined formal-urban/rural-modern sectors (36.4 percent)—Bolivia being the country with the smallest proportions [49]. According to Ecuador's latest population census (1990), the percentage of wage earners in the EAP was one of the lowest in Latin America (42.5 percent), while the percentage of self-employed (39.2 percent) combined with that of unpaid family workers (4.4 percent) was among the highest [37].

The traditional social insurance of the Bismarckian type—followed in Ecuador—mainly covers urban wage earners (except for Peasant Insurance), thus explaining low population coverage. A significant number of wage earners is actually not covered by social insurance due to evasion: in 1990 of 1.4 million salaried workers, only 816,000 (57 percent) were insured. Furthermore, very few workers in the *modern* rural sector are covered. Ecuador has a very large tertiary (service) sector (45.5 percent), an indication of the significant informal employment which is normally not insured. Estimates of the informal sector range from 40 to 45 percent [3, 37, 71, 77]. Another impediment to the universalization of coverage is the low population density and isolation of the Oriente (Amazonian) region.

The most important step taken to break the structural barrier to universalization of coverage has been the Peasant Insurance Program which began in 1968 and was improved in 1973 and 1981. It covers peasants (and their dependent families) organized in cooperatives, communes or similar agrarian associations or even those who are not organized but collectively request incorporation. The initiative has to be taken voluntarily by the community, but the decision is made by the IESS based on a feasibility study of access facilities and the minimum size of the community. (The Ecuadorian program differs from the Mexican as the latter gives priority to the poorest and most isolated peasant populations [58].)

The percentage of peasants insured in relation to the rural population is still very small but growing fast: 1 percent in 1974, 3 percent in 1982, 9 percent in 1985, and 14 percent in 1990. In the 1980s, 76 percent of the expansion of IESS coverage of the total population reflected peasants incorporation into IESS: while

the number of peasants insured increased 465 percent in that period, the rest of the insured population rose 47 percent [Exhibit 3]. If the current trend continues, by the mid-1990s the peasant share of total insured will predominate. Despite the progress achieved so far, a stronger government commitment and financial resources are required to cover the rural sector.

Another step towards universalization taken in the 1980s was to open social insurance coverage to the self-employed, but the affiliation is mostly voluntary and places the entire financial burden on the insured (see section 4.1); hence few in this group have joined the IESS.

3.4 INEQUALITIES IN COVERAGE

Since 1981 IESS has not published detailed data on the number of persons actively insured by occupational groups. Thus, it is not possible to accurately measure disparities in the degree of coverage among those groups [87]. In 1981 the highest coverage was in government administration and public utilities (64 percent); followed by mining, petroleum, and manufacturing (43 to 50 percent); and then construction, commerce, finance, and insurance (29 to 30 percent). Coverage fell below the national average in services (23 percent), but certainly coverage in social services was much higher than in personal services and among domestic servants. The low coverage in transportation and communication (15 percent) was probably due to the large segment of self-employment in these activities. Agriculture and fishing register the lowest coverage (4 percent) [49]. Coverage in government/public utilities was 15 times higher than in agriculture.

The expansion of legal coverage in 1982/1991 (to the self-employed, agricultural wage earners, and the voluntarily insured) has probably reduced the coverage gap, but we lack statistics to prove that assumption. Still in 1990, 90 percent of the non-peasant insured were urban salaried workers: 60 percent in the formal private sector and 30 percent in the public sector. Scattered data indicate that coverage remains very low among other groups of workers. For instance, in 1990 there were 196,700 construction workers, of whom only 25,359were registered at IESS (12.9 percent); 198,000 agricultural salaried workers, of whom 10,000 were insured (5 percent), and 300,000 artisans, of whom only 27,600 were registered (9 percent). There were 28,781 domestic servants insured, representing possibly one-fifth of the total number of domestic servants in the labor force. Voluntary registration totalled 38,780, but the IESS does not have data as to how many self-employed are insured. Conversely, 180,000 workers insured by IESS (22 percent of all active insured) had duplicate coverage by private insurance [3, 11, 35, 37, 65].

Exhibit 4 shows the inequalities in IESS coverage among Ecuadorian provinces. In 1982, the more urban and developed a

province, the higher its social insurance coverage. The island of Galápagos, whose labor force is almost totally employed by the Ecuadorian government or international organizations, had the highest coverage (20 percent). Next were the relatively industrialized provinces of Pichincha (19.4 percent), Guayas and Azuay (10 and 11 percent), the respective sites of Quito (the capital city) and Guauaquil and Cuenca (the second and third largest cities). Two Sierra provinces with high coverage were Carchi (10 percent) and Imbabura (12 percent). The first is on the frontier with Colombia and is commercially very active, while the second is noted for agro-industrial activities. The province of Pastaza, in Oriente, is an oil producer and also showed high coverage. The most rural, isolated and underdeveloped provinces had the lowest social insurance coverage: Morona, Napo, Bolivar, Los Rio, and Zamora (3 to 4 percent in each). IESS coverage in Pichincha was six times higher than in Morona.

EXHIBIT 3

IESS COVERAGE OF THE POPULATION OF ECUADOR: 1965/1991
(in thousands and percentages)

	Population		Insured[a]							% of Coverage		% of Total Pop. Covered			Ratio	
			General System			Peasant Insurance				Total	Grand	Total		General	Peasant	Active/
Year	Total	EAP	Active	Passive	Total[b]	Active[c]	Dept.	Passive	Total	Active[d]	Total	Population[e]	EAP[f]	System	Insurance passive[g]	
1965	5,162	1,828	223	27	250	0	0	0	0	223	250	4.8	12.2	100.0	0.0	8.2
1970	5,943	1,885	308	40	348	0.5	2	0	2	308	350	5.9	16.3	99.4	0.6	7.7
1975	6,724	1,942	420	55	475	8	36	0	44	428	519	7.7	22.0	91.5	8.5	7.8
1980	7,654	2,223	555	84	639	21	87	0	108	576	747	9.8	25.9	85.5	14.5	6.8
1985	8,623	2,675	649	106	755	76	314	1	391	725	1,146	13.3	27.1	65.9	34.1	6.8
1990	9,648	3,360[h]	816	127	943	110	499	2	611	926	1,554	16.1	27.6	60.7	39.3	7.2
1991	9,867	3,535[h]	866	135	1,001	126	573	2	701	992	1,702	17.2	28.0	58.8	41.2	7.2

[a] Excludes military and police as well as voluntary and self-employed insured at IESS. Active insured in the armed forces are roughly given as 40,000 to 50,000 plus 24,500 passive in 1990; and other IESS insured were 130,000 in that year.

[b] Only the female insured's infant below one year is covered on health care (quite limited until the 1990s), hence, there are very few dependents.

[c] Head of household; all dependents in family unit are covered.

[d] Sum of active in general system and peasant insurance.

[e] Grand total insured/total population.

[f] Total active insured/EAP. IESS calculates this column incorrectly by adding insured peasant's dependents.

[g] Total active divided by total passive (in both general system and peasant insurance.

[h] IESS gives an EAP of 3,327,550 for 1990, lower than the census figure shown in the table; EAP in 1991 is my projection instead of IESS.

Sources: 11, 12, 13, 14, 15, 35, and author's estimates.

Analysis of the 1990 data shows dramatic changes due largely to the impact of Peasant Insurance which now extends to all provinces. Thus, three of the most rural provinces in Ecuador, all located in Oriente with the smallest populations in the nation, sharply increased their coverage ranking. Morona moved up from last to sixth place, as coverage jumped from 3 to 19 percent; Zamora from sixteenth to tenth place (4 to 17 percent); and Napo from nineteenth to sixteenth place (3 to 13 percent). In addition, Bolívar, the most rural province in the country, also with a small population, moved up from eighteenth to fifteenth place (4 to 15 percent). Los Rios, however, remained the worst in coverage. The breakdown of IESS coverage between general and Peasant Insurance indicates that the bulk of the insured in rural provinces with small populations are peasants and their families— from 69 to 78 percent of the total insured. On the other hand, the ranking of Guayas, the second most urbanized province and the largest in population, declined from fourth to sixteenth as only 19 percent of its insured are peasants. Galápagos and Pichincha, the other two most urbanized provinces, still maintained their top coverage ranking.

In sum, Ecuador is far behind both the population coverage levels achieved by Latin American countries in a similar stage of development and the ultimate goal of universal social security coverage. Despite some modest advances, the rate of expansion of coverage is slow, is largely determined by structural factors, and indicates the need for global reform. Coverage of the dependents of the insured is one of the two most restricted in LAC. The best organized and most powerful economic activities or occupations enjoy the highest coverage, and vice-versa. Peasant Insurance is the most dynamic force in expanding population coverage in Ecuador and has dramatically improved protection in the most rural provinces, but it still covers only 14 percent of the total rural population.Despite the low population coverage, the financial burden of social insurance in Ecuador is very heavy, the result of generous benefits and extremely high administrative costs.

EXHIBIT 4

IESS COVERAGE OF POPULATION BY PROVINCE: 1982 AND 1990

Provinces	Coverage Total 1982	Coverage: 1990 Total	General System	Peasant Insurance	Rural % of Total Population 1990
Sierra (Highlands)	**12.4**	**20.0**	**12.8**	**7.2**	**48.6**
Carchi	10.2	21.8	8.9	12.9	59.4
Imbabura	11.7	15.8	7.7	8.1	51.3
Pichincha	19.4	23.4	21.3	2.1	27.1
Cotopoxi	6.8	18.1	5.7	12.4	76.3
Tungurahua	7.4	10.8	7.6	3.2	58.1
Bolivar	3.6	15.2	4.7	10.5	78.9
Chimborazo	10.1	19.2	5.5	13.7	67.1
Cañar	4.8	18.8	4.4	14.4	70.7
Azuay	11.5	21.8	10.5	11.3	56.8
Loja	5.6	17.2	5.8	11.4	60.5
Coast (West)	**8.3**	**12.8**	**7.6**	**5.2**	**37.9**
Esmeraldas	5.4	17.0	5.4	11.6	56.0
Manabi	8.1	16.2	4.2	12.0	58.0
Los Ríos	3.8	5.2	2.8	2.4	62.2
Guayas	10.2	13.1	10.6	2.5	27.7
El Oro	6.0	9.0	5.5	3.5	29.5
Oriente (East)	**4.1**	**15.7**	**4.3**	**11.4**	**73.3**
Napo	3.3	13.2	3.8	9.4	75.5
Pastaza	9.3	17.8	6.6	11.2	63.8
Morona Santiago	3.2	18.9	4.1	14.8	71.7
Zamora Chinchipe	4.2	17.2	4.8	12.4	75.4
Galápagos (Islands)	**20.0**	**21.5**	**17.9**	**3.6**	**18.1**
TOTALS	**10.1**	**16.1**	**9.8**	**6.3**	**44.6**

Sources: 52 updated with 35.

4.0 FINANCING: WAGE AND OTHER CONTRIBUTIONS

The IESS is basically financed by:

- Wage contributions from the insured and the employer (51 percent of total IESS revenue in 1990);
- State contributions as a third party in addition to state contributions as employer (9 percent); and
- investment returns (27 percent). The remaining 13 percent came from other sources [11].

There are no special taxes earmarked for social insurance. Major problems of IESS financial disequilibria are the state debt, failure of employers to contribute, and payment delays (*mora*). This section focuses on wage contributions by the insured and employers as well as state contributions as a third party.

4.1 WAGE CONTRIBUTIONS FROM INSURED AND EMPLOYERS

The wage contribution is fixed as a percentage of the wage or salary (without ceiling or *topes*) of the insured and is paid by the latter as well as by employer. The scope of the salary tax base is not always the same. In the private sector it includes all compensation except the three extra monthly salaries paid annually but in the public sector it includes only the basic salary stipulated in the appointment or in the budget. As a result of these exclusions, only 60 percent of potential revenue is collected [6, 18, 61, 78].

Exhibit 5 shows the current percentage of wage contributions to the *general* system, totaling 20.5 percent. This is a rather high percentage, taking into account the small percentage of the population covered. At the end of the 1980s, Ecuador had the tenth highest percentage contribution among 30 LAC countries but ranked sixteenth in total population coverage among 22 LAC countries. Five of the countries with higher percentages (Argentina, Brazil, Chile, Costa Rica, and Uruguay) had universal coverage of social security or were close to it. All of these countries, except Costa Rica, were pioneers in the introduction of social insurance in the Western Hemisphere; hence their programs are much older than those of Ecuador. Furthermore, these countries have aging populations and their life expectancy, except in Brazil, is from eight to 13 years higher than Ecuador's. Another four countries ranked higher than Ecuador in the total percentage contribution are Bolivia, Mexico, Paraguay, and Peru. But as in the previous cases, all these countries have a higher degree of total population coverage than Ecuador [57]. These comparisons were made using the general system percentage contribution in Ecuador rather than taking the full percentage range which would have increased that country's ranking in terms of a higher percentage contribution in the region.

The above comparisons emphasizes the fact that the social insurance contribution rate in Ecuador is excessively high. The total contribution grew more than two-fold in 1937/1992. From 10 percent in 1937, it increased to 11 percent in 1952, 14-15 percent in 1960, 17.5 percent in 1973, 18.5-19.5 percent in 1981, and 20.5 percent in 1992. Within the general private sector, the increase in the legal contribution has been slightly higher for the employer than for the insured. But in the general public sector, the increase in the employer (state) contribution has been almost three times higher than that of the insured.

As Exhibit 6 shows, the contribution varies significantly among insured groups. (It was not possible to determine the contribution of military men and policemen). In 1989/1991, an increase in the total percentage contribution of several groups represented a step toward uniformity. Part of the increase was also designed to pay for the expansion of benefits to those groups, such as occupational risks and paid sick-maternity leaves. Despite these positive changes, significant differences among groups persist.

Within the general system, the public sector percentage is now equal to that of the private sector, but the insured in the former enjoy better pension conditions than in the latter. Better social security benefits for public sector employees can not be justified as a compensation for lower wages in this sector vis-a-vis the private sector; in 1990 the average salary of the former was about 20 percentage points higher than in the latter [11].

Within special coverage, teachers, construction workers, and printing employees have higher rates than in the general system (respectively 10, 8.33, and 8.33 percent more), also due to improved pension and severance programs. Among teachers, the burden of this privileged program is shared equally between the insured and the state but, among printers, the employer (the state in the public sector) pays three times the percentage of the insured. The construction workers program is mostly financed by the insured. Telecommunication workers have special benefits that are entirely charged to the "mathematical reserve of the state," which is non-existent. The total contribution for employees of banks and autonomous institutions is two percent higher than the total contribution for the general system because some of the benefits of the latter group are better. Temporary sugar cane workers pay a higher total contribution (15.5 percent more) than in the general system as they work no more than six months per year and the premiums must cover them during the slack season. Salaried drivers, artisans, domestic servants, and permanent agricultural workers now pay a total contribution similar to that of the general system.

The self-employed and the voluntary insured pay a lower contribution —3.7 percent less— than that of the general system as they are not eligible for severance pay, with the exception of artisans and workshop masters. The insured pay the whole contribution since there is no employer, however. Thus, the self-employed's percentage ranges from 50 to 80 percent higher than that of the common salaried worker.

Furthermore, to be covered, the self-employed must have a minimum income and must be a member of a cooperative, a union or an association which must agree to retain the contribution of the insured. The probable very low coverage among the self-employed is explained by these extra burdens.

The head of a peasant family only pays one percent of the minimum salary in agriculture and, although he/she is not eligible for certain benefits, his/her dependents are covered for maternal health care. The program is subsidized by a one percent wage contribution divided among the insured and the employer (0.35 percent each), plus the state (the remaining 0.30 percent) [18, 23, 35, 46].

EXHIBIT 5

LEGAL CONTRIBUTIONS TO IESS BY PROGRAM AND SOURCE: 1992
(as a percentage of wages or income)

Programs	Insured		Employer	State	Total[a]
	Salaried	Self-employed & Voluntary			
General system[b]	5 or 7	12	7 or 5	[e]	12.0
Two extra monthly pensions	1	1			1.0
Severance pay	2	d	1		3.0
Sickness-paid leave		1.3	1.3		1.3
Occupational risks		1.5	1.5		1.5
Funeral aid	1	1			1.0
Peasant insurance[c]	0.35		0.35	0.30	1.0
TOTAL	9.35 or 11.35	16.80	11.15 or 9.15	0.30	20.5

[a] Excludes contributions of self-employed and state, as well as additional contributions for improved pensions and severance, see Table 5.

[b] Includes pensions (7.39% in private sector), health care (3.41% in ibid), and administrative expenditures (1.2% in ibid). In the private sector, the salaried pays 5% and the employer 7%; in the public sector it is the opposite.

[c] Insured peasants pay 1% of minimum agricultural wage.

[d] Self-employed artisans and workshop masters pay an additional 3% for severance.

[e] The state pays 40% of the total costs of pensions as well as improved pensions for several groups.

Source: 35.

EXHIBIT 6

DIFFERENCES IN LEGAL CONTRIBUTIONS TO IESS AMONG GROUPS OF INSURED: 1992 (as a percentage of wage or income)

Insured Groups	Insured	Employer	Total[a]
1. General Obligatory System (all salaried)			
Private sector (white & blue collars)	9.35	11.15	20.50
Public sector (civil servants)	11.35	9.15	20.50
2. Special Regimes Obligatory			
a. Salaried			
Agricultural sugar (temporary) workers	15.18	20.82	36.00[b]
Public teachers	16.35	14.15	30.50
Construction	17.68	11.15	28.83[c]
Printing (public)	13.35	15.15	28.50[d]
Printing (private) and railroad	11.35	17.15	28.50[d]
Autonomous institutions & banks	11.35	11.15	22.50
Professional drivers, artisans, domestic servants	9.35	11.15	20.50
Agricultural workers	9.00	11.15	20.15
b. Self-employed			
Artisans and workshop masters	19.80		19.80
Liberal professions, artists & associated self-employed[e]	16.80		16.80
3. Voluntary			
Other self-employed, continuation of coverage, any other adult	16.80		16.80

[a] Plus 1% to 8% for additional contracted severance pay (and pensions).

[b] Both the insured and the employer pay higher contributions for all programs.

[c] Includes 8.33% for the Reserve Fund.

[d] Includes additional contributions of insured and employer (a total of 5.5% to 10%) for improved pensions.

[e] Associated in unions, cooperatives, etc. which take responsibility for payment.

Source: 35.

4.2 STATE CONTRIBUTIONS AS A THIRD PARTY

The state is obliged to cover 40 percent of the cost of pensions in the general system (both sections). This provision has its roots in an actuarial deficit found in 1941 in the public pension fund. In order to correct this deficit, the law established the obligation of the state to subsidize the cost of *all* pensions. An IESS study said about this subsidy: "This was an inequitable solution because it placed the burden of the deficit on the nation as a whole, while insurance coverage is a privilege of a minority of wage earners..."[49]. The burden has been so heavy that the state has consistently tried to reduce or eliminate it (see section 3). In addition, in 1959/1964 the state became responsible for military and police pensions, as well as special (additional) pensions for telecommunication, railroad, mining and printing workers, and teachers [18]. Finally, we have already noted that the state contributes 0.30 percent of salaries for Peasant Insurance.

Although no studies have been made of the impact of social insurance financing on income distribution, the above description and the experience of other Latin American countries permit one to make an educated guess. It appears that the less developed a country, the less the possibility that the employer's contribution can be transferred back to the insured worker (as a cut in his real salary) and the higher the chance that such a contribution either be transferred forward to the consumer (through price increases) or result in stagnant employment (due to substitution of capital for labor). In either case, the impact is always regressive— either because jobs are not created or because the non-insured contribute to the social insurance system while receiving nothing in return [51]. Ecuador probably falls into this category [1] and, if the regressive impact is via employment, the high Ecuadorian contribution rate should accentuate that negative effect. On the other hand, if the regressive impact is via transfer of the contribution to the consumer, the very limited coverage of the population should also aggravate the regressive effect. Furthermore, due to the overall regressive structure of the tax system in Ecuador —towards the end of the 1980s, 46 percent of tax revenues of the central government were generated by indirect taxes, and about half of them were sales taxes [41]— the state contribution to social security probably has a regressive impact too.

The only progressive feature of the financing system is the Peasant Insurance program, but the small wage contribution assigned to this program (which in the 1980s generated less than 2 percent of total IESS revenue [11]) reduces its compensatory effect. It should be noted also that the contribution paid by the peasant is based on the minimum agricultural wage and, since the peasants are basically self-employed, they do not benefit from, but are negatively affected by, increases in the minimum wage.

In sum, Ecuador's social insurance financial structure is obviously in need of drastic reform: the overall percentage contribution is too high, differences in the contributions of both the insured and the

employers among various groups are still significant and seldom justified, and the state contribution is also high and largely inequitable. Several studies have recommended the uniformity of all IESS percentage contributions [19]. Pragmatic evaluations of the state contribution have concluded that it should be reduced to realistic levels [49]. But government inertia and vested interests have contributed to maintenance of the status quo. The high burden imposed on the state and employers, combined with poor IESS control and inspection plus high inflation rates, are all powerful incentives to evade or delay payments.

4.3 STATE DEBT

The debt discussed in this section is due to the failure of the state (central government) to effectively pay its obligations as employer as well as a third-party contributor to IESS. The debt to IESS by other public institutions at the national level, as well as by provinces and municipalities and private employers, will be discussed in the next section. Although by law the IESS has to report annually to the Ministry of Finance the amount the state owes, since 1963 this obligation has seldom been fulfilled.

In 1964/1985, the IESS and the state signed 12 payment agreements (*consolidaciones*) through which the state debt for a previous period was acknowledged and a commitment made to amortize it in a given period of time with a fixed annual interest. According to the IESS, interest on the debt is paid by the state punctually (the first agreement did not mature until 1987), and interest and penalties are charged for payment delays [18]. And yet, the IESS has also acknowledged that: (a) when the state pays the debt, it does so with devalued currency; (b) the interest rates fixed in the agreements have been systematically below the market rates; and (c) the IESS has lost the opportunity to invest the huge sums owed by the state in a timely fashion [27]. According to IESS, in 1980/1990 the state paid 38.7 billion sucres for amortization and service of its debt— but in sucres, which reduced the sum by 80 percent to eight billion sucres [13].

Despite its importance, the IESS has rarely published detailed information on the debt [10, 11, 17]. Outside experts pinpoint the serious deficiencies of state-debt statistics: (a) there are no archives supporting the data in the agreements; (b) sources on which the agreements should be based are either not quoted or are not clear; (c) military and police pension debt in some years is not based on accounting data; (d) standardized procedures are not used to estimate the debt (e.g., the basis on which to calculate the 40 percent contribution is confusing, different interest rates appear to be charged in the same agreement, and the obligations of regional and provincial governments are usually not included); and (e) when data are not available, figures are "invented" or roughly estimated [3, 63, 64].

Exhibit 7 (top segment) presents all the available information on the 11 agreements. Between 1964 and 1973, such agreements were signed annually or every other year. In 1973/1983 the period between agreements

increased to three or four years. Reportedly no agreements have been signed since 1985. The interest rate was seven percent until 1979, gradually increasing to 18 percent. But it was constantly below the market rate and well below inflation, and hence it was negative. For example, in 1984 the agreement interest rate was 15 percent, while inflation averaged 31 percent. The term of the first agreement was 25 years. This decreased to 20 years over the next eight years and declined further to 15 years in the last two agreements. These periods have been excessively long in view of the high inflation rates and fixed interest rates. According to Exhibit 7 (top segment), cumulative state debt from the 11 agreements totaled 38.3 billion sucres. IESS statistics provided in May 1992 (bottom segment of Exhibit 7) indicate the cumulative state debt from the agreements at 26.8 billion sucres, plus 20.3 billion sucres in interest, for a total of 47 billion sucres.

EXHIBIT 7

STATE DEBT PAYMENT AGREEMENTS WITH IESS: 1964/1991

	Year	Reason	Interest (%)	Term (years)	Amount (million sucres)	Constant million sucres
1.	1964	Capital amortization not paid (1956-63)	7	25	168.0	4.1
2.	1966	Employers contributions, etc. (1962-64)	7	20	195.4	5.2
3.	1966	40% pensions (1958-64)	7	20	110.5	2.9
4.	1969	Employer contributions + 40% (1965-67)	7	20	862.1	26.3
5.	1970	Employer contributions (1968-69)	7	20	652.6	20.9
6.	1972	Additional insurance railroad (1970-)	7	20	106.7	4.0
7.	1973	For military & police pensions (1970-71)	7	19	1,004.7	42.6
8.	1976	Employer contributions (1972-74)	7	20	2,026.5	132.8
9.	1979	Employer contributions (1975-76)	7	20	3,656.3	333.3
10.	1984	Employer contributions (1977-83)	15	15	22,703.5	6,157.7
11.	1985	Employer contributions (1983-84)	18	15	6,829.4	2,357.0
TOTAL					38,315.7	9,086.6

ESTIMATED TOTAL STATE DEBT TO IESS AT THE END OF 1991
(million sucres)

	With Agreements	Without Agreements	Total	Million U.S. Dollars at 1991 Exchange Rate
Capital	26,780	118,879	145,659	140.0
Interest	20,294	175,921	196,215	188.7
TOTAL	47,074	294,800	341,874	328.7

Sources: 10, 11, 19, 35.

In addition, the IESS estimated state debt at 118.8 billion sucres for which noagreements had been signed, plus 175.9 billion sucres in interest rates. The total owed by the state to the IESS in May 1992 was 342 billion sucres. At the official exchange rate, this was equivalent to U.S. $328 million. Taking inflation into account, in constant sucres, the cumulative capital debt under agreements had shrunk to 24 percent of its nominal value in 1988, thereby losing 76 percent of its real value. A comparison of the value of the debt in US dollars in 1988 (U.S.$603 million) and 1991 (U.S.$328.7 million) indicates a decline of almost one-half of its value [52].

In 1988, the state included in its budget 8.6 billion sucres as payments to the IESS, but the latter estimated state obligations as 15.5 billion sucres. By the end of 1988 not one single sucre had been paid. By July 1989 the state had paid only 16 percent of the estimated 16.6 billion sucres due that year, covering only 40 percent of pensions and Peasant Insurance [19, 21]. In May 1992 IESS officials reported that, since 1989, the central government had paid "all its obligations" to the IESS —although at very low interest rates— covering at least the 40 percent for pensions and the contribution to Peasant Insurance but possibly not the armed forces deficit. The IESS was negotiating with the Ministry of Finance a twelfth payment agreement for the state debt incurred in 1986/1988, but the probabilities of success were slim [11, 72, 83].

Part of the state debt referred to has been for obligations incurred by the Military and Police Funds with the IESS. The latter is charged with collecting contributions from, and paying cash benefits to, the armed forces but, normally, expenditures outgrow revenues. (When public and private funds merged in 1963, the military fund was already bankrupt). To make things worse, the state systematically delays the payment of its contributions as an employer. As a result, the IESS is forced to deploy its own funds —funds that otherwise would be invested— to pay benefits due to the armed forces. Eventually the state debt is paid with devalued currency and at negative real interest rates. In the 1973 agreement signed with the IESS, the state acknowledged a debt of one billion sucres due to unpaid contributions to, and deficits in, the Military and Police funds only for the years 1970-1971. In 1984, a sharp increase in armed forces pensions was estimated to cost IESS 1.2 billion sucres [49]. In 1980/1990, the cumulative deficit of this fund was 10.6 billion sucres (see Exhibit 21).

A series of legal steps have been taken to force the state and public agencies to honor their obligations punctually. These dictate that the Central Bank automatically discount social insurance contributions of public agencies; that the contribution of the state (and other public institutions) as an employer be included in the general budget; that in case of *mora* the General Comptroller impound funds until contributions are paid or an agreement is signed. Since 1987, a law mandates that the congress, prior to the approval of all public budgets, check that proper contributions to the IESS are included in those budgets [19]. The General Comptroller has recommended that an IESS

interdepartmental committee be established to prepare a manual of procedures and instructions to estimate the state debt on an annual basis [3] but, to the best of my knowledge, such a committee has not been created.

4.4 DEBT OF PRIVATE AND OTHER PUBLIC EMPLOYERS

The employer, be it private or public, can evade altogether its obligations to the IESS. It may avoid registration (no data are available on this) or, being registered as employer at the IESS, it may not pay its due contributions (and those of its employees) on time, thus becoming delinquent or in *mora*. In some IESS documents, the term *mora* is used exclusively for delinquent employers who have not signed a payment agreement. But, technically, the term can be applied also to those employers who have signed an agreement, until they fully pay their debt. To avoid confusion, herein, we use *mora* for both situations.

Data in Exhibit 8 refer to *mora* by private employers, and in some periods it also includes national public employers, excluding the state or central government, and provincial and municipal employers. By the end of 1991, the cumulative debt for *mora* from provinces/municipalities, with or without agreements, and from employers at the national level lacking an agreement, reached 7.6 billion sucres (U.S. $21 million). In constant 1982 sucres, however, that debt was reduced by 93 percent, to 197 million sucres. Recent IESS information indicates that the *mora* incurred by public institutions and provincial and municipal governments was not included in the last four years of Exhibit 8. The addition of that *mora* would increase the total to 21.6 and 30.5 billion sucres in 1989 and 1990, respectively, equal in the last year to U.S.$39 million [11].

Theoretically, IESS has numerous legal and administrative avenues to control the *mora*. In 1966, the IESS was authorized to intervene delinquent enterprises and cancel their business licenses. In 1973, in addition to interest, a penalty of two to four percent was charged to *mora* and, if the debt was not paid within 90 days, the IESS was authorized to take the debtor to court. The IESS signs payment agreements with the debtors to recover the capital in a given period—from six months to five years—charging interest and penalties. Before signing an agreement, the debtor must pay from 10 to 15 percent of its debt. All agreements shall be guaranteed by mortgage, insurance, bail or pawn. If the debtor fails to pay two installments of the agreement, the whole debt is considered due or "payable" and the IESS can proceed to collect it. At this point, the IESS can intervene the enterprise or ask the General Comptroller to impound all the assets of the enterprise and sell them to satisfy the debt [19, 25, 49].

In practice, the IESS failed to use the legal recourses described above properly, and high inflation aggravated the situation. For instance, in the 1980s interest charged by IESS was fixed well below the rates of market interest and inflation. In 1983, the interest for *mora* was set from 16 to 19.5 percent, according to length of the payment

agreement periods, plus a penalty of four percent (for *mora* of payment of interest). The inflation rate that year reached 48 percent, however, and the maximum interest charged combined with the penalty still resulted in a negative rate of 24.5 percent. In 1988, interest on *mora* was 28 percent, but the commercial interest rate was 48 percent and the rate of inflation was 80 percent [19]. In addition, repayment periods as long as five years without capital indexation provoked a dramatic decline in the real value of the debt. Thus Exhibit 8 shows that, due to high inflation rates in the 1980s, the real value of the cumulative debt for *mora*, in constant sucres, declined dramatically. Despite this, in 1984 the director of IESS told a World Bank mission that *mora* was beneficial because of its "highly profitable yield." Furthermore, there was no reaction to the mission suggestion that the owed capital and the interest charged should be indexed to inflation [49]. Four years later, the new IESS administration acknowledged these facts and recommended to increase interest and penalties, but not to index both [19].

EXHIBIT 8

ESTIMATED VALUE OF EMPLOYERS'[a] DEBT FOR *MORA* TO THE IESS: 1982/1991
(at the end of the year; in million sucres)

Year	Detected New *Mora* (1)	*Mora* Collected by IESS (2)	Cumulative *Mora* Debt[b] (3)	Debt in Constant Sucres (1982)[c]
1982	n.a.	n.a.	3,766	3,766
1983	376	711	3,431	2,311
1984	480	1,042	2,869	1,474
1985	1,065	1,095	2,839	1,139
1986	1,351	894	3,296	1,074
1987	1,966	1,526	3,736	931
1988	4,335	3,451	4,620	736
1989	4,935	6,572	2,983	270
1990	5,987	3,591	5,379	328
1991	9,211	6,999	7,591	197

[a] It is not clear if private as well as public institutions, provinces,and municipalities are included in all years; in 1988/1991 probably only private employers were included.

[b] Column 3 (year 1) + column 1 (year 2) - column 2 (year 2) = column 3 (year 2).

[c] Author's estimates based on average annual inflation [3].

Sources: 11, 24, 25, 52.

Another problem is that the IESS department charged with the inspection of employers did not effectively control employer payments nor employer failure, under an agreement, to pay two installments. There was a backlog of several months on the basic data needed to exercise such control. Furthermore, procedures to declare the debt "payable" were very slow and considerable time was wasted pending collection of the debt and frequently the debtor disappeared with a considerable volume of assets [3]. In 1988 the IESS confirmed some of these inefficiencies: "[We] neglected our duties and in some cases allowed the debt to become so high that it turned into an insoluble problem" [25].

A third problem, reported in 1989 by the IESS, was the poorly coordinated involvement of at least four departments in the control and collection of *mora*. They were the Control of Insured and Employers, Economics and Finance, Risks and Benefits, and the Attorney General. In addition, the Department of Control operated without such basic equipment as typewriters and calculators as much as a year after requesting it [24].

In 1987 the IESS launched a National Plan of Control (NPC) of *mora* by carrying our 53,000 inspections across the nation. Results of the plan have been reported quarterly since October of that year. As shown in Exhibit 8, both the detected amount of new *mora* as well as collections increased sharply in 1988/1991, probably as a result of the plan. The NPC reports, however, were lengthy, complex, inconsistent, and failed to provide a clear summary of Plan results. The NPC report at the end of 1988 comprised separate reports on three sectors:

- National Level: IESS payment agreements signed with public institutions (excluding the central government) and private employers; these included 115 agreements for a total value of 5.6 billion sucres;

- Without agreements (supposedly at the national level), the total value of the *mora* was 4.3 billion sucres;

- Provincial and municipal governments: these included 158 institutions, of which 69 percent were up-to-date in their obligations, 16 percent were in *mora*, 11 percent had agreements (or were in the process of signing them) and four percent did not provide the requested information. The combined value for agreements and *mora* was 1.7 billion sucres [25].

Important issues not noted in the NPC 1988 report were:

- Of the total sum in *mora* owed to IESS, 59 percent was under agreements and 41 percent was not covered by agreements;

- At the national level (probably mostly represented by private employers), the respective proportions were 57 percent and 43 percent, while among provinces and municipalities the proportions were 77 percent (including agreements in process) and 23 percent;

- No data were reported on the number of employers at the national level that were in *mora*, and only 115 agreements had been signed among those employers;

- Sixty-nine percent of provinces and municipalities were up-to date in their obligations; but the report omitted that key figure for the national level;

- An unknown number of signataries of agreements had failed to pay two installments for a sum roughly equal to 10 percent of the total value of all the agreements; and

- The IESS pinpointed that, among provinces and municipalities, 98.5 percent of the debtors (either in *mora* or under agreements) was concentrated in the coast, which only has 37 percent of the insured. But IESS failed both to analyze the causes of that phenomenon and to provide that information at the national level.

Although the NPC program for 1989 was geared to "the problems which have impeded the correct application of the Plan," it contained only a few scattered references to such problems, much less a thorough systematic analysis of them. The program repeated several times the targets set for each inspectorship district (e.g., the number of inspections to be carried out daily, the sum of *mora* to be detected) without giving any indication of how such targets were reached. On the other hand, many targets were quite vague— such as "continue with the execution of the plan" or "improve the inspectors' productivity." The statistics section was quite short and vague, its main goal being "to gather the information needed." The document lacked a systematic evaluation of the degree of non-fulfillment of the plan. Of 38 inspectorship districts reviewed, only one reported that the plan was met by 30 percent. There was no serious analysis, either, of the causes of non-fulfillment [24]. Therefore, this document was of little practical use in improving the performance of future plans.

Computerization rapidly expanded in the 1980s and early 1990s, among other things, to provide more effective control of evasion and *mora*. New computer equipment was rented or bought, and by 1992 600 employees were working in this field. Reportedly, all 1988/1990 contributions are computerized in individual accounts, particularly in Quito and other major cities. But now the personnel must computerize contributions prior to 1988, a more complex and time-consuming task. A list of delinquent employers is prepared, but it was not clear from my discussions with IESS officials whether it was done manually or by computer. Furthermore, detection of *mora* must be followed by effective action, and it was not until early 1992 that the IESS computer and inspection-administrative branches began seriously to coordinate their activities [76].

Evasion is a more difficult nut to crack. There is no consensus among IESS officials as to whether this problem has been significantly reduced. A top official said that the number of inspectors and checks of clandestine enterprises had to be increased to achieve substantial

results [83]. An outside expert claims that all these laudable efforts are undermined in practice by employers who have the proper political connections or economic power [85].

Perhaps the most effective measures to control *mora* were introduced recently. These include:

1. A sharp increase in the interest rate charged to *mora* (62 percent in 1990, hence, well above inflation) which no longer makes it profitable for employers to deposit their contributions in banks for payment later to IESS —a recommendation made by the World Bank to IESS officials eight years ago; and

2. The obligation for an insured worker to be up-to-date in his/her contributions to IESS in order to request a loan or receive certain benefits, providing the worker with an incentive to pressure the employer to pay up or to denounce him to the IESS [76, 86]. It was not possible to accurately assess the effectiveness of these measures in reducing *mora*.

In brief, in 1991 the combined debt of the central government (342 billion sucres or U.S.$329 million) and other public and private institutions (at least 30 billion sucres or U.S.$39 million) reached 372 billion sucres (U.S.$368 million). This was close to the total reserves (net assets) of the IESS in the previous year. Despite some progress achieved (in improving control/collection of *mora* and state payments in 1989/1991) and the fact that payment of the central government debt is basically beyond its control the IESS has been administratively negligent and inefficient in handling these problems. Recommendations to improve the situation were ignored in the past and, although the past administration seemed to be committed to correcting the existing problems, their plans were not effective enough to correct them.

5.0 FINANCING: PORTFOLIO INVESTMENT

IESS data on investment is fragmentary and often contradictory. (Unless specified, information in this section comes from [54]). There is not a series of total net assets; figures in Exhibit 9 have been painfully reconstructed by me from a variety of sources, based primarily on the reserves of the various IESS programs. The invested asset series (total net assets less fixed and net-current assets) has been consistently published by the IESS since 1974 but in a fragmented and often confusing manner. The most conflicting data are on investment returns, for which there are at least four sets of data. I selected the one that encompasses the most consistent data over time. IESS data on nominal yields are also contradictory. I have found at least three series —two released by IESS and one published by an outsider— with significant differences among them. I decided to reproduce the most consistent IESS series, as well as my own estimates of nominal yields, using the proper formula inserted in Exhibit 9, footnote e. Finally, the IESS has never published real (deflated) yields; therefore, I calculated them using the standard formula (Exhibit 9, footnote f). In view of these problems, real yield estimates should be used with caution.

5.1 SIGNIFICANCE

Total net assets increased 12 times in 1980/1990 but, adjusted for inflation, decreased 43 percent; invested assets increased 16 times in current prices in 1980/1991 but declined 58 percent in constant prices. In 1990, total net assets were equal to five percent of GDP while invested assets equalled 1.4 percent of GDP. An expert has estimated that in 1989 IESS reserves represented 85 percent of total stocks and bonds traded in the stock markets of Quito and Guayaquil and 106 percent of those traded in the private sector. If the state debt is added, those percentage increased to 59 percent of Central Bank credit, 35 percent of total savings and 426 percent of the trading value on the stock market [1].

The difference between total net assets and invested assets consists of fixed assets and net-current assets. Such a difference took a huge, although declining, proportion of total net assets in 1978/1982— 75 to 57 percent, but this increased again to 70 percent in 1990. This may be explained by the enormous state debt, the value of IESS infrastructure (such as administrative buildings, hospitals, etc.) and considerable liquid assets frozen by the Central Bank.

5.2 PORTFOLIO COMPOSITION

According to Exhibit 9, trends in the percentage distribution of IESS invested assets in 1978/1990 were as follows:

- Government bonds steadily declined from 40.3 percent to 9.3 percent in 1978/1986 but then increased to 23 percent in 1990;

- Personal loans increased from 32.5 to 42.5 percent in 1978/1985 but decreased to 33 percent in 1990;

- Mortgage loans averaged 12 percent in 1978/1981 but steadily increased in 1982/1988, reaching a peak of 40 percent before they declining to 6.5 percent in 1990;

- Loans to IESS programs (e.g., sickness-maternity, peasant insurance) and the public sector (municipalities, armed forces, universities) peaked at 10 percent in 1980 but declined to five percent in 1988, although increasing somewhat thereafter;

- Fixed-term deposits peaked at 18 percent in 1980 but were negligible after 1982 (however, there were, and are, substantial IESS funds deposited at the Central Bank, which do not earn interest);

- Shares declined from five percent to zero in 1984, then increased to 3.3 percent in 1986 and declined thereafter; and

- Real estate (land, construction) peaked at 16 percent in 1977 but declined to 1.4 percent in 1990.

In summary, loans/mortgages were the most important investment (87 percent) in 1985 and, among them, personal loans were the most significant. The second most important (but declining) instrument was government bonds (10 percent); all remaining instruments showed a declining trend and totaled less than 3 percent in 1985. This composition did not change significantly in 1986/1987, but starting in 1988, the new government—induced by negative real yields and the rapid decapitalization of the reserves—implemented an important shift: by 1990, 48 percent of instruments were in loans and mortgages, 23 percent in public and mortgage loans, and the remaining 20 percent in other instruments, particularly short-term investment.

The allocation of investment described above, at least until the late 1980s, violated IESS regulations. For instance, 17 percent of invested assets must be in government bonds, but in 1985/1987 the actual proportion was well below that; at least 30 percent ought to be in variable yield investments such as real estate and shares, but in the 1980s the actual proportion ranged from one to six percent; 30 percent should be in mortgage and personal loans, a limit exceeded in the 1980s by as much as 50 percent; and 23 percent must be in other investments, but only a minuscule proportion actually was until 1989. Since mid-1990 the Monetary Board of the Central Bank must approve all financial investment (public/mortgage bonds, shares, etc.) of public institutions including the IESS. The latter violated that obligation in 1991, resulting in judicial proceedings [18, 27, 70].

EXHIBIT 9
AMOUNT, COMPOSITION AND REAL YIELD OF IESS INVESTED ASSETS: 1978/1991[a]

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Total Net Assets[b] (million sucres)	23,202	30,741	32,616	41,283	46,897	53,013	73,326	103,223	n.a.	197,260	264,757	326,165	391,383	n.a.
Invested Assets[c] (million sucres)	5,802	8,977	12,360	14,245	15,267	15,814	23,614	28,712	39,061	37,479	49,224	62,047	114,012	197,440
Investment Return[d] (million sucres)	595	874	1,496	1,723	1,745	1,615	1,967	2,155	471	2,569	4,103	5,468	15,846	27,490
Nominal Yield														
IESS	10.2	9.7	12.1	12.1	11.4	10.2	8.3	7.6	1.2	6.8	8.3	8.8	13.9	13.9
Author[e]	11.5	12.5	15.1	13.8	12.5	11.0	10.5	8.6	1.4	6.9	9.9	10.3	19.7	19.4
Rate of Inflation (%)	11.6	10.3	13.0	16.3	16.3	48.4	31.2	28.0	23.0	29.5	58.2	75.6	48.5	48.7
Real Yield (%)[f]	-0.1	2.0	1.8	-2.1	-3.3	-25.2	-15.8	-15.2	-17.5	-17.4	-30.5	-37.2	-19.4	-19.7
Composition (% distr.)														
Public/Mortgage Bonds	40.3		26.0	38.8	35.2	19.0	17.2	9.8	9.3	13.8	22.3	12.4	23.0	11.0
Loans/Mortgages	42.2		51.1	50.6	61.3	78.8	80.2	87.5	83.2	82.3	69.0	64.5	47.6	43.7
Personal	32.5		27.6	29.9	33.0	39.5	35.9	42.5	38.2	35.8	34.6	41.7	33.2	34.5
Mortgage	9.5		13.2	13.9	23.5	34.6	39.3	37.8	39.6	40.4	29.4	17.0	6.5	1.5
Others[g]	0.2		10.3	6.8	4.8	4.7	5.0	7.2	5.4	6.1	5.0	5.8	7.9	7.7
Fixed-Term Deposits	7.5		17.7	5.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Shares	5.2		0.4	0.2	0.4	0.2	0.0	0.1	3.3	0.4	0.3	0.3	0.6	0.4
Real Estate	3.9		4.7	5.0	3.0	1.9	2.5	2.5	3.2	1.7	1.0	2.4	1.4	1.2
Others[h]	0.9		0.1	0.1	0.1	0.1	0.1	0.1	1.0	1.8	7.0	19.4	27.4	43.7
TOTAL	100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

[a] At the end of the year.
[b] 1978-1979 from ILO; rest from IESS [12, 35] which does not take the state debt into account.
[c] Excludes fixed and net current assets; ILO data for 1978-1980 give 3.5 times the figures in the table.
[d] The IESS gives budgeted original data on investment returns (1978-1986) which are from 30% to 400% higher than the other IESS series given in the Table; the World Bank also has a series (1978-1983) which is from 100% to 200% higher than the Table's; the ILO series (1978-1983) is from 26% to 170% higher than the Table's. I have used a series of final (ejecución) budget that does not take into account the state debt, provided by the IESS Dept. of Investment dated May 6, 1992 [35].
[e] Estimated by the author based on the formula: $(I_r \times 200) \div (I_1 + I_2 - I_r)$, where I_r = investment return, I = invested assets (1 = at the start of the year; 2 = at the end of the year. The IESS nominal yields are systematically smaller because they divide the investment return by the invested assets both in the same year.
[f] Based on the formula: $\frac{1 + y}{1 + i} 100$, where y = nominal yield coefficient and i = inflation coefficient.
[g] Loans to IESS programs (sickness-maternity, including infrastructure, peasants, etc.) and public sector.
[h] Pawn loans, non-specified stocks, IESS shops, short-term investment (the latter becomes important in 1989/1991).
Sources: 5, 12, 13, 35, 42, 52.

The IESS investment is officially classified in two broad categories: investment directly beneficial to the insured (*privativas*), such as personal and mortgage loans, and hospital construction, and investment not directly beneficial to the insured (*non-privativas*), such as bonds, bank deposits, shares, and real estate. In the 1970s, the majority of invested assets was in *non-privativas* instruments but, as seen in Exhibit 10, in 1980/1985 the proportion of *privativas* in total investment steadily increased from 47 to 87.6 percent while the share of *non-privativas* declined from 53 percent to 12.4 percent. This provoked a sharp decline in the total investment yield because *privativas* instruments generated, at best, one-half of the yield generated by *non-privativas*. And yet, such unprofitable increase was hailed in 1984 by an IESS study as a positive move away from the prior "economicist" orientation that opposed such a move, arguing that it would decapitalize the fund. The 1980/1985 trend has been reversed again since 1986, and by 1990 invested assets were almost equally divided among the two types of instruments.

In 1988/1989, the IESS criticized the predominance of investment in *privativas* as a distortion of the nature and objectives of social investment because most investment goes to the actively insured and has decapitalized the reserves. This happened, the IESS said, because political reasons had predominated over technical criteria and pressure exerted by user interests on social insurance interests. "In recent years, the disproportionate allocation of investment [to *privativas*] ignored all caution, and healthy equilibrium, being incompatible with the nation's economic reality and alleging social reasons which cannot justify our heavy losses," IESS added [18, 27]. The Central Bank also put pressure on the IESS to change its investment policy in order to make it much more profitable [70]. In 1989 the IESS prepared an ambitious program to change the composition of the portfolio, substantially reducing investment in *privativas* and raising it in *non-privativas*, and to increase its yields [27]. Several of these measures have been implemented and are described in this section, while others remain to be enforced.

5.3 YIELDS

Exhibit 9 shows that the IESS annual real investment yield was negative in 1978/1991 except for two years, averaged -14.2 percent in the period (-0.3 percent in 1978/1982) and deteriorated -22 percent in 1983/1991 due to high rates of inflation and poor investment policy. The 1984 World Bank mission pinpointed this problem, but it was not until five years later when the crisis was brought into the open that the IESS acknowledged, for the first time, that real yields had been negative [19, 27]. Fixed interest rates for personal/mortgage loans and low-starting rates for mortgage loans were the main culprits in the negative yield performance. An analysis of yield by type of instrument follows.

EXHIBIT 10

PERCENTAGE DISTRIBUTION AND YIELDS OF IESS INVESTED ASSETS
IN *PRIVATIVAS* AND NON *PRIVATIVAS* INSTRUMENTS: 1980/1991

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Percent Distribution												
Privativas (P)	47.0	51.1	61.2	79.0	81.8	87.6	84.9	84.3	71.1	67.8	49.8	45.6
Non-*privativas* (NP)	53.0	48.9	38.8	21.0	18.2	12.4	15.1	15.7	28.9	32.2	50.2	54.4
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Nominal Yield[a]												
Privativas	9.4	9.4	8.6	8.1	6.0	6.2	0.9	5.2	5.1	5.0	4.2	8.1
Non-*privativas*	14.5	14.9	16.8	18.0	18.9	17.9	2.8	16.0	16.4	16.8	23.5	18.8
TOTAL	12.1	12.1	11.4	10.2	8.3	7.6	1.2	6.8	8.3	8.8	13.9	13.9
Ratio of NP yield to P yield	1.5	1.6	2.0	2.2	3.2	2.9	3.1	3.1	3.2	3.4	5.6	2.3

[a] There is an older IESS series that gives higher total yields, e.g., 9.6% in 1986, 11.1% in 1987, 9.5% in 1988 and 16.3% in 1989 [13]. The series for 1986/1991 reproduced in the table was provided to me in May 1992 by the Department of Investment [35].

Sources: 12, 13, 17, 18, 27, 35, 52.

5.3.1 Mortgage Loans

This instrument had a stagnant average nominal rate of 9.9 percent in 1980/1981 but declined to 6.6 percent in 1982/1983 and to 4.8 percent in 1984/1986 when inflation rates were increasing. Thus, the real yield, which was -3 percent in 1980, worsened to -34 percent in 1983 and to -51 percent in 1988 [11, 27, 35, 62, 63].

The decline in the real yield of mortgage loans was caused by the liberal conditions introduced in 1981 for such loans. Since 1982, the interest rate (which before was fixed for the entire term) became variable. It was fixed every five years, beginning with a very low rate that gradually increased. This policy was extremely beneficial for the borrower, particularly since 1983 when inflation rates jumped dramatically. But the new policy cost the fund two to 3.6 billion sucres in 1983 alone, and without taking inflation into account.

Another harmful effect of the new mortgage loan policy was that the compulsory insurance premium that the IESS charges to the borrower as a guarantee against a potential loss of capital (in case of death or disability of the borrower or destruction of his property) was grossly insufficient. Furthermore, the premium ceased to be based upon both the loan term and the borrower's age. To make things worse, a medical examination, previously required before granting insurance, was abolished and some gravely ill individuals accepted mortgage loans knowing that they were going to die.

Soon after the new policy was enacted, a well-known international actuary reviewed its bases and found that it contained grave mathematical errors; he estimated that only 69 percent of the capital would be amortized, causing a 31 percent loss of borrowed capital, and that the insurance premium for a typical 25-year loan would produce a deficit of 33 percent of capital without taking potential disasters into account [61]. The IESS has estimated that, in 1988, only 150 million sucres of lending totaling 65 billion sucres was amortized that year, for a rate of 0.23 percent and this without taking into account the devaluation of the loan due to high inflation rates [19, 27].

Following a financial crisis in 1985, changes were introduced in the mortgage policy: the maximum amount of the mortgage loan was frozen at two million sucres in 1984/1991; the interest rate was increased (to 12, 14, 16 percent and 22 percent in relation to the amount lent); the insurance premium was also raised (from 0.65 to 1.6 percent, still considered inadequate because of its uniform nature), and the renewal of loans and their use for purposes other than homes (e.g., offices) was prohibited [64].

At the end of 1991, more drastic measures were introduced, to wit:

- The principal of the loans is now tied to the minimum wage and subject to a ceiling of 200 to 300 minimum wages;

- Terms of the loans decline from 20 to five years as the age (50 to 65 years) of the borrower increases; Loan interest is also tied to the minimum wage (an attempt to index the interest to the rate of inflation failed); and

- The compulsory premium is also tied to the minimum wage [33]. (I do not know whether such a premium is now adequate [including full administrative costs] and whether or not the medical exam prior to granting the loan has been reintroduced.)

These measures are positive, but some problems remain and new ones have been added:

- Indexation is only partial as the minimum wage is only a fraction of total compensation and is not totally adjusted to inflation (in 1992 the government did not increase the minimum wage; hence, loans were not adjusted, at least until May);

- The loan ceiling has been increased from two to eight million sucres, or to 12 million for a marriage if both are insured; and

- Mortgage loans still have a negative real yield and continue to decapitalize the fund [70, 79, 80, 85].

Mortgage loans have always been a privilege for a minority of high-income insured —estimated at 10 percent— because the borrower must prove his capacity to pay and the amount of the loan increases with the borrower's salary. New 1991 regulations will restrict even more the proportion of insured capable of borrowing, to perhaps the top one percent [85]. Within the favored group are military men and policemen who receive six percent of total mortgage loans (eight percent of personal loans), despite the fact that their "fund" is non-existent because the state pays only part of its obligations into it [19, 27].

5.3.2 Personal Loans

This instrument had an average nominal yield of 9.6 percent in 1980/1982 but decreased to 7.5 percent in 1983/1986; the real yield of these loans declined from -3 percent in 1972 to -26 percent in 1983 and to -67 percent in 1989. As in the case of mortgage loans, personal loans are not indexed to inflation; their interest rate was initially fixed at 8 percent and reduced to 4 percent in 1958, increasing to five percent in 1981 and remaining at that level throughout the last decade despite spiraling inflation. Under the law, the minimum interest of these loans should equal the actuarial interest, which is six percent. In trying to compensate for this legal violation, the IESS collected all interest in advance and charged an extra 0.75 percent as insurance on the unpaid balance. In 1987 a maximum of 10 minimum wages for the loan was charged, their terms fluctuating from one to two years, and they were renewable under the initial conditions. According to IESS, these loans have had a negative impact on total yield, have been used to purchase consumer goods, thereby fueling inflation, and have prompted borrowers to deposit

the money in commercial banks which pays several times the interest charged by IESS , thereby earning a handsome profit [19, 18, 23, 27].

IESS has noted that both mortgage and personal loans are not charged for administrative costs, which are high. In 1988, an average mortgage loan cost 70,000 sucres which, for a total of some 12,000 loans, produced a 840-million-sucre (U.S. $2.8 million) loss for the IESS. The average cost of a personal loan was 4,000 sucres which, multiplied by 222,424 loans, induced a loss of 890 million sucres (U.S. $3 million). According to IESS, each loan should be charged 4.3 percent to cover these costs, but because those administrative expenses are not factored into the investment, the nominal yields of these loans are actually much smaller than reported [19, 27].

In 1992 there was considerable discussion about increasing the interest rate on these loans. The Central Bank and the IESS actuary recommended that the current interest rate be changed or that principal and interest be indexed to inflation. It was finally decided to set a fixed interest rate of 20 percent —less than half the inflation rate of 1990/1991— and not permit renewal of the loan. Terms were set from 12 to 24 months. On the other hand, the maximum amount of the loan was increased from 120,000 to 400,000 sucres (U.S.$286 in May 1992). Although that amount is small, some 65 billion sucres, equal to $60 million, were lent in 1991. Despite these positive measures, these loans have a real yield of about -30 percent and continue to decapitalize the fund [70, 78].

5.3.3 Other Loans

These include mainly loans to institutions and pawn loans. Loans to public institutions were governed by the same regulations for 43 years, charging 6 percent interest much of the time and creating substantial losses. Recently, these loans were prohibited, although previously awarded loans continue to draw down the IESS reserves [18, 22, 23, 27]. But "hidden loans" to IESS maternal health program continue.

Until 1983, only one percent of IESS reserves were used in the construction of hospitals and acquisition of equipment. However, in 1984/1985, about 92 percent of the sickness-maternity program revenue was expected to come from the general fund rather than from its own revenues. In 1985 five percent of IESS investment was used for hospital construction and for sickness-maternity care, increasing to seven percent in 1986. Although these proportions decreased in 1988/1989, the 1992 budget assigned 12 percent of investment to health care infrastructure [35]. These loans/investments are really free transfers, or gifts, because they are neither paid back nor do they generate interest. Prior to 1982, these loans at least paid the actuarial interest but, due to increasing deficits in the maternal health program, the IESS decided to "temporarily" authorize the transfer of funds from other branches until an actuarial study would determine the proper contribution needed to fully finance the maternal health program. The actuarial study had not been completed by May 1992, and in 1990 a 21-billion-sucre deficit in the

health program was subsidized by other IESS branches [18, 19, 27, Exhibit 22].

The IESS owns and operates 31 pawnshops which grant loans using the pawned articles as collateral. In 1988, these loans charged from 18 to 23 percent interest (which is previously discounted from the loan) at a time when commercial banks were charging 45-percent interest and administrative expenses equal to 11 percent of the loan were not charged to the borrowers. Hence, the IESS estimated that the real yield of these loans was -33.7 percent, without taking administrative costs into account [18, 19, 23].

5.3.4 Public Bonds

The nominal rates of government-bonds increased steadily from 16 to 23 percent in 1980/1986, but their real yields deteriorated from 2.6 percent to zero (still much better than personal/mortgage loans). These bonds have been sold at a five-year term since 1988 and are redeemable every six months. Their interest rate is adjustable every six months, but not the capital. Therefore, the yields of these instruments have increased. In 1987/1991 the average nominal yield of government bonds rose from 32 to 40 percent, still below the inflation rate except in the first year; and nominal yields of mortgage bonds increased from 29 to 52 percent in the same period, exceeding the rate of inflation in 1990/1991 [6, 18, 27, 80].

5.3.5 Fixed-Term Deposits

This instrument had the highest nominal yield in 1980 (16.8 percent) and was the only one to have a real positive yield (3.3 percent) that year and in most of 1974/1981. And yet, fixed-term deposits were practically eliminated after 1982. Un-invested IESS funds must be deposited in the Central Bank, as is the case with all public institutions. IESS deposits increased from 7.7 to 128 billion sucres in 1987/1991, accounting for a rising percentage (14.8 to 56 percent) of total deposits in the Central Bank [11, 35]. As no interest is paid on these large deposits, IESS loses a substantial sum. For example, $130 million deposited in 1991 could have earned at least $65 million at the commercial bank rate. The Central Bank argues that, being a public institution, IESS must abide by the rules of that sector, while IESS officials claim that theirs is not a government agency, that IESS funds belong to the insured and that their deposits are enormous. Reportedly, monetary regulations dictate that the Central Bank invest the IESS funds or pay interest on them. There is hope, therefore, that part of those funds may be invested in government bonds or pay interest at market rates [70, 80].

5.3.6 Shares and IESS-Owned Businesses

Possibilities for profitable investment in private stock are limited in Ecuador because of the difficult financial straits of many companies, low dividends due to the 1980s crisis, a reduced number of enterprises qualified to enter and trade in the stock market, a minimal number of

stocks, and an inadequate risk classification of companies. The Quito and Guayaquil stock exchanges are reported to be inefficient and provide poor guarantees to investors. Also, public confidence in stocks is low. The IESS can only buy shares through the stock market, based on quotas previously determined on an annual basis and with prior approval of the Executive Council and the Central Bank. Hence, IESS lacks flexibility to take advantage of relatively safe and profitable opportunities and, in practice, there is no IESS investment in stocks [18, 19, 27]. In 1992 a bill was introduced in the legislature to modernize the stock market, but even were it approved, it would take time to develop a dynamic institution capable of absorbing even a modest part of the IESS funds [1, 70].

IESS has invested in 19 enterprises which are classified into three groups with the following proportions of share investment (1988) and yields in 1990 (see Exhibit 11):

- Private enterprises had 29.4 percent of their investments in stock, a nominal yield of 45 percent and a real yield of -3 percent. Included here were banks (an 8-percent share and a -1 percent real yield); industries (a 16.8-percent share and a -19 percent real yield); and commerce and services (a 4.6 percent share and a -20 percent real yield).

- Public enterprises had 12 percent of investment in stocks and a positive 10 percent real yield. Included here are the Housing Bank (with a negative yield of -76 percent), and a cement factory (98 percent owned by IESS).

- Projects in progress had 58.6 percent of investments in stocks. The global nominal yield of all stock rose from 17.49 percent in 1984 to 69.39 percent in 1988 and declined to 58.68 percent in 1990. There were real yields only in 1988 and 1990, and the average annual real yield for the entire period was -4 percent. In 1989, the IESS Economic Financial Division recommended sale of the shares of five enterprises which had not shown a profit, as well as one of its own enterprises which had been shut down since 1987; to raise the low rent paid by the hotel it owns; and to open its cement factory to private investors through a bond issue in order to complete the structure and make it operational [28].

5.3.7 Real Estate

For the most part buildings owned by IESS are rented. Often, however, maintenance costs are higher than rent because the latter has not been adjusted for inflation. Some land owned by IESS has been "invaded" or illegally occupied by individual squatters (but also by state agencies) and is impossible to recover [19, 27].

EXHIBIT 11

NOMINAL YIELDS[a] OF IESS INVESTMENT IN ENTERPRISES: 1984/1990

Enterprises	1984	% 1985	1986	1987	1988	1989	1990	distribution[b]
A. Public Enterprises	9.20	0.00	9.20	0.00	0.00	0.00	58.77	12.0
Banco Vivienda (housing)	24.15	0.00	24.15	0.00	0.00	0.00	-28.28	5.2
Guapán (cement)	0.00	0.00	0.00	0.00	0.00	0.00	59.68	6.8
B. Private Enterprises	25.12	25.01	26.41	37.84	83.13	78.21	45.02	29.4
1. Banking & Finance	21.66	18.76	15.61	38.80	32.63	74.75	47.46	8.0
B. Pacífico	40.00	12.00	64.70	36.74	52.59	39.00	74.20	0.2
B. Pichincha	24.26	60.41	32.00	52.19	22.60	449.19	78.75	0.4
B. Préstamos	34.41	39.43	11.28	19.85	84.24	52.77	10.91	0.0
B. Popular	33.45	8.30	18.79	37.01	40.86	89.04	46.58	4.1
COFIEC	8.00	28.46	7.50	39.54	22.09	0.00	47.00	3.3
2. Industrial	23.94	21.48	25.68	26.46	58.21	77.59	29.37	16.8
Artepráctico	33.72	0.00	0.00	0.00	0.00	0.00	0.00	3.8
Chimborazo (cement)	16.54	0.00	418.25	10.15	0.00	3.78	0.00	0.8
Andina (beer)	37.55	47.85	73.32	86.92	143.47	51.52	0.00	2.2
ECASA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.4
IANCEM (sugar)	0.00	0.00	0.00	0.00	50.00	141.56	23.01	4.6
Internacional	25.00	55.97	131.41	69.50	117.33	74.00	53.88	3.7
Life(pharmaceutics)	0.00	95.10	0.00	71.95	0.00	242.55	11.03	1.1
Sociedad Agricola (sugar)	0.00	121.06	9.19	110.63	45.00	28.34	55.41	0.2
3. Commercial & Services	37.30	50.34	50.31	88.04	260.80	81.44	68.10	4.6
Executive Club	0.00	0.00	0.00	150.00	0.00	0.00	0.00	0.0
Disinco (beer)	143.75	143.97	64.85	223.69	189.83	116.69	0.00	0.1
Hotel Colon	50.00	100.00	75.00	175.00	200.00	150.00	60.06	1.0
La Favorita (supermarket)	30.00	33.00	43.00	65.00	281.51	70.00	70.00	3.5
C. Projects in Progress	0.00	7.59	0.00	0.00	0.00	0.00	0.00	58.6
TOTALS[c]	11.62	11.37	7.02	9.40	24.46	30.49	56.68	100.0
TOTAL EXCLUDING C[c]	17.49	13.11	20.30	25.44	69.39	61.78	58.68	

[a] IESS estimated nominal yield: dividends in cash and shares divided by nominal value of investment.

[b] Percentage distribution of total value of IESS nominal investment in enterprises (1988).

[c] Excludes 1,308.5 million sucres in ownership of Hotel Quito and Metallic Product Factory.

Sources: 28, 35.

5.3.8 Others

Included here are IESS shops (*comisariatos*) which sell goods (including luxury goods, liquor, etc.) at subsidized prices mostly to its employees as part of the collective labor agreement. These shops do not cover operational expenses and hence operate at a loss. In the past the IESS had a program to build housing for the insured. The program was extremely expensive, however, produced a low or negative yield, and was discontinued in the early 1980s.

5.4. RECOMMENDATIONS TO IMPROVE INVESTMENT PERFORMANCE

In order to increase real investment yields, the IESS should take the following steps:

- Design a new investment policy giving absolute priority to security, liquidity and the profitability of investments. The fundamental objective of the IESS is to fulfill its social security obligations with the insured rather than providing them loans or other type of services;

- Terminate mortgage and personal loans. If such is not politically feasible, their principal should be indexed to inflation and their rate of interest set higher than the rate of inflation (other security conditions such as an adequate premium—including full administrative costs—to guarantee payment of a mortgage loan in case of death or disability, previous medical exam, etc., must be established);

- Base future investments in state and mortgage bonds equally on indexation of principal and interest to inflation, and should renegotiate previous bond purchases to achieve more profitable terms;

- Minimize the amount of funds deposited at the Central Bank, investing them as much as possible, and should pay adequate interest on such deposits;

- Prohibit loans and accounting transfers to IESS branches, particularly in the maternal health program, and should repay past loans with adequate interest;

- Help enact a new law modernizing the stock market and creating a system for risk classification, thus facilitating IESS investment in profitable shares;

- Sell unprofitable enterprises that it totally or partially owns;

- Permit deposits in commercial banks at market rates, should be allowed, particularly if the Central Bank does not pay interest on IESS deposits;

- Permit investments in foreign currency, rich metals and secure stocks;

- Constantly monitor investments to determine whether to retain, sell or change them; and

- Train or otherwise hire personnel in its investment department to develop the skills needed to efficiently manage its portfolio. [27, 66, 70]. Reforming investment regulations would increase investment yields and potentially either lower the social security burden or facilitate expansion of coverage.

6.0 EXPENDITURES: BENEFITS

6.1 COSTS AND TRENDS

Data on IESS current expenditures are not always consistent, and there are three divergent series, two of which (the longest and most consistent) are reproduced in Exhibit 12 (columns 3 and 4). The two series show a large increase in current expenditures in current sucres in 1980/1990. Which, when adjusted for inflation, reflect a decline of 34 percent in the first series and two percent in the second series. (Total expenditures in 1980 sucres declined 58 percent in the same period, according to the IESS. However, a breakdown of current expenditures reveals two opposite trends: benefit expenditures decreased 62 percent while administrative expenditures increased 93 percent [13].

IESS expenditures as a percentage of GDP declined either from 3.6 to 2.2 percent (column 3/1) or from 3.8 to 2.8 percent (column 4/1); in relation to government expenditures, the decline was from 23.4 to 15.5 percent and from 24.5 to 20 percent (columns 3/2 and 4/2 respectively). In 1986 Ecuador ranked tenth among 28 LAC countries in terms of a high percentage of social security expenditures over GDP— above countries with higher population coverage such as Mexico and Venezuela [57]. Reasons for the high costs of social insurance in Ecuador are the generous benefits and entitlement conditions, and high administrative costs.

In 1990 only 37 percent of IESS current expenditures were allocated to benefits, as compared to 41 percent in 1980 [13]. Exhibit 13 shows that, in 1972/1988, a large majority of benefit costs were allocated to pensions. These increased in 1972/1980 (from 59.2 to 76.7 percent), then levelled off in 1981/1983, and decreased in 1986 (1988 data are not comparable because they include all IESS expenditures). Conversely, the share of maternal health benefits declined in 1972/1983 (from 29.6 to 16.9 percent) and then increased to 35.8 percent in 1986. The share of severance benefits exhibited a declining trend (10.5 to 3.9 percent) and the share of occupational risks a rising trend (from 0.7 to 1.4 percent). As the pension program matured and its benefits and entitlement conditions were liberalized, the share of program expenditures increased, the later to decline as the crisis of the 1980s eroded the value of real pensions. Conversely, the share of maternal health first declined and then increased with the expansion of coverage to peasants and other groups. Transfers from the pension and other programs to the maternal health scheme supported the latter's expansion until the IESS financial crisis at the end of the 1980s.

6.2 GENEROSITY OF BENEFITS AND ENTITLEMENT CONDITIONS

IESS population coverage in Ecuador is quite low by Latin American standards, but the insured enjoy more benefits and more favorable entitlement conditions than in most countries of the region. Those insured under the IESS general system are protected against practically all social risks. They are entitled to old age, disability and survivor pensions; medical and hospital care, dental care, medicines and paid

leaves in cases of illness, maternity and occupational accidents and disease (as well as pensions for the latter); severance payments and unemployment pensions; and funeral aid. In addition, the insured are eligible for a variety of loans [most data in this section comes from 23, 49, 52].

EXHIBIT 12

EXPENDITURES AND COSTS OF IESS: 1980/1990
(in billion sucres at current prices)

Year	GDP (1)	Gov't Current Expenditures (2)	IESS Current Expenditures[a] (3)	(4)	Percent IESS Expenditures over GDP (3/1)	(4/1)	Gov't (3/2)	(4/2)
1980	293.3	45.3	10.6	11.1	3.6	3.8	23.4	24.5
1981	348.7	55.8	11.3	12.8	3.2	5.1	20.2	22.9
1982	415.7	67.8	12.6	15.4	3.0	3.7	18.6	22.7
1983	560.3	75.8	16.7	20.4	3.0	3.6	22.0	26.9
1984	812.6	107.8	23.2	23.7	2.9	2.9	21.5	22.0
1985	1,109.9	144.2	30.9	34.3	2.8	3.1	21.4	23.8
1986	1,383.2	213.4	41.6	44.7	3.0	3.2	19.5	20.9
1987	1,794.5	272.0	53.7	56.0	3.0	3.1	19.7	20.6
1988	3,019.7	396.8	74.9	95.2	2.5	3.2	18.9	24.0
1989	5,325.2	703.0	114.9	157.7	2.2	3.0	16.3	22.4
1990	8,349.7	1,167.1	180.7	233.3	2.2	2.8	15.5	20.0

[a] **There are, at least, three different series on current expenditures of which two are reproduced; column 3 is from IESS [13]; column 5 is from the Central Bank [4]. A third series 1980/1989 is given by IESS [12].**

Sources: 4, 12, 13, 52.

EXHIBIT 13

PERCENTAGE DISTRIBUTION OF IESS BENEFIT EXPENDITURE BY PROGRAM: 1972/1988

Programs	1972	1974	1980	1981	1982	1983	1986	1988[a]
Pensions	59.2	60.6	76.7	75.2	74.2	75.8	59.0	65.8
Maternal Health	29.6	29.1	14.7	16.0	16.5	16.9	35.8	23.8
Severance	10.5	9.5	6.4	6.6	7.1	5.7	3.8	3.9
Occupational Risks	0.7	0.8	2.2	2.2	2.2	1.6	1.4	6.5
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

[a] Distribution of total expenditures.

Source: 42 and 43 for 1972/1986, 35 for 1988.

The pension program not only covers old-age, disability, and death risks, but it adds seniority pensions, three annual extra monthly pension payments, and a supplemental pension program for privileged groups. The overall age of retirement is 55 (for both sexes), with 30 years of contribution (the latter declines with age, e.g., 10 years of contributions at 70 years of age). Those entitlement conditions equate Ecuador with Haiti (which requires 20 years of contribution) as the two countries in the Americas that have the lowest retirement age after Bolivia (55/50 for males/females with 15 years of contribution). But Haiti and Bolivia have lower life expectancies than Ecuador: 10.7 and 12.3 lesser years, respectively [55]. Life expectancy at birth has increased 16 years since 1955 and undoubtedly more since 1929-1937 when the first pension programs were established in Ecuador.

The Social Security Code enacted in 1972 mandated an increase in the age of retirement from 55 to 60 in accordance with the increase of life expectancy in Ecuador, but the code was later suspended [61]. The retirement age in some countries of the region is 65 for both sexes (including Guatemala which has a lower life expectancy than Ecuador) or 65 for males and 60 for females (including Honduras, also with a lower life expectancy). Hence, it comes as no surprise that Ecuadorian pensioners enjoy the third longest average period of retirement in the region: 20 to 21 years [55].

Furthermore, one can retire in Ecuador with 35 years of work at any age (receiving 81 percent of the average salary earned in the best five years). Hence, an insured person who begins work at 15 can retire at 50, increasing the average period of retirement by five more years. The insured female can retire with only 25 years of service, regardless of age, and can receive 100 percent of the average salary earned in the best five years. The high cost of this benefit has precluded its practical implementation, however. There are few Latin American countries which still have seniority pensions (Chile, a pioneer, abolished them in 1979). Finally, an insured person who is dismissed with 25 years of work can retire at 45 years of age with a reduced pension. A lump sum is paid at the time of retirement at the rate of one month's salary for each year of work.

The number of dependents with a right to survivor pensions is quite large (in the absence of a spouse or companion and children, parents and brothers and sisters are eligible) and the maximum age of orphans with a right to pensions is excessively high (25 years, whether the children are students or not). Dependents of an insured person who dies before fulfilling the requirements for a survivor's pension can withdraw five percent of all the contributions paid by the insured, and a lump sum equal to 20 minimum salaries is paid to the survivors of a deceased insured as funeral aid. Finally, all pensions can be accumulated with salary, and when the beneficiary retires from the second job, he/she is entitled to an increment in the pension.

Under the maternal health program, in addition to medical-hospital-dental care, the insured enjoys generous benefits such as part of the

costs of dental prothesis and contact lenses (these benefits were available in Costa Rica but were eliminated in 1982). Services received at facilities outside of IESS are fully compensated in most cases, and when prescribed medicines are not available at the IESS, the insured can obtain them in private pharmacies. In addition, the insured is entitled to the cost of travel and treatment abroad when specialists or services are not available domestically (if the insured dies abroad, the IESS pays the transportation of the corpse back home). Obviously, this benefit is not actually granted to all the insured who might need it and it devolves upon the IESS to decide arbitrarily who should receive it. Ecuador's conditions for entitlement of the insured's maternal health benefits are about average within the region. However, dependents are eligible for very few benefits. Neither the wife nor the children of an insured male are entitled to any benefits. Until recently, the infant of a female-insured below one year of age was eligible for medical care but not for surgery and medicines, and children above one year of age still are not entitled to benefits. Ecuador is one of two countries in Latin America that does not provide full health care coverage to dependents.

There is no typical unemployment compensation in Ecuador, but only five countries in Latin America, more developed than Ecuador, have this program. There is severance pay for the bulk of the insured, however—a lump sum fixed according to salary and years of work. In addition, there are unemployment pensions and, until 1963, a dismissed insured could withdraw all his/her contributions. But this benefit is no longer available. Among privileged groups, however, an insured who is dismissed can withdraw his/her contributions from a reserve fund. Finally, in all cases, the unemployed is entitled to continuation of health care benefits for a period after dismissal. Maternal health benefits are maintained for two months after dismissal and voluntary continuation of coverage is available.

As we have already seen, the insured is eligible for mortgage, personal and pawn loans from the IESS. Conditions on most of these loans were so generous until recently that, in practice, the insured received a gift. Until the early 1980s, the insured could also participate in IESS subsidized housing programs.

The real value of IESS cash benefits remains ahead of inflation. According to the ILO, in 1965/1975 there was a real increase of 64 percent in the value of such benefits, ranking Ecuador's increment as the sixth highest among 17 LAC countries. In 1980/1983, despite the economic crisis, Ecuador's increment was nine percent, the thirteenth highest among 27 countries in the region [42]. Pension increments are mainly responsible for those trends. The minimum pension has been made equal to the minimum wage (even for reduced special retirement pensions); also, pensions are adjusted to the cost of living three times annually and, in addition, there is a compensation for inflation [61].

Exhibit 14 shows that in 1970/1980 the real value of pensions (excluding the military, which are the best adjusted) steadily climbed (except in three years), increasing almost 74 percent. However much the

economic crisis may have eroded the value of pensions since 1980, in 1987 the real pension was 28 percent higher than the 1970 level and 11 percent higher than in 1979, an improvement which few countries in the region have enjoyed. The IESS crisis provoked further erosion of real pensions in 1988/1991; in the latter year they were about half the 1980 level despite significant increases by the government. Severance payments and funeral aid also lost 31 and 58 percent, respectively, in 1980/1990. In 1992 there were plans to increase all these benefits [9, 11].

EXHIBIT 14

REAL VALUE OF IESS AVERAGE ANNUAL PENSIONS: 1970/1991

Year	Pensions[a] (million sucres)	Pensioners (thousands)	Average pension per cap. (sucres)	Indices: 1970 = 100 Nominal Pension	Real Inflation[b]	Pension
1970	393	45	8,733	100.0	100.0	100.0
1971	509	48	10,604	121.4	109.7	110.7
1972	578	51	11,333	129.8	117.8	110.2
1973	633	54	11,722	134.2	132.1	101.6
1974	848	58	14,621	167.4	144.6	115.8
1975	999	61	16,377	187.5	165.2	113.5
1976	1,120	65	17,231	197.3	182.1	108.3
1977	1,518	67	22,657	259.4	205.6	126.2
1978	1,647	72	22,875	261.9	232.5	112.6
1979	2,093	80	26,162	299.6	256.0	117.0
1980	3,595	82	43,841	502.0	288.8	173.8
1981	3,890	84	46,095	527.8	335.8	157.2
1982	4,420	88	50,410	572.2	390.5	147.8
1983	6,604	98	67,407	771.9	579.6	133.2
1984	7,851	103	76,310	873.8	760.4	114.9
1985	10,528	106	98,898	1,132.5	973.3	116.4
1986	14,396	110	131,108	1,501.3	1,197.1	125.4
1987	19,454	112	173,900	1,991.3	1,550.2	128.4
1988	26,310	116	226,928	2,598.5	2,452.5	106.0
1989	39,355	122	321,194	3,677.9	4,306.5	85.4
1990	64,104	128	501,848	5,746.6	6,395.2	89.8
1991	93,530	134	696,162	7,971.6	9,509.7	83.8

[a] Old age, disability, survivor pensions, exclude pensions of the armed forces.

[b] Average of the cost of living in the three largest cities; 1987-1991, urban average.

Sources: 52 updated with 5, 11, 35.

6.3 INEQUALITIES IN BENEFITS

An IESS study published in 1984 acknowledged the existence of significant inequalities among insured groups: benefits are improved or restricted responding to pressure groups. The preferential treatment is given through legislation or contracts signed with the IESS. The military was identified as the group with the most advantages. Although in recent years there has been some standardization of benefits, in 1988 the IESS ratified the persistency of inequalities. Insured groups with the greatest benefits are the most powerful and best organized and enjoy the highest income levels (military men, teachers, miners, communication employees), while insured groups with the worst benefits have little political influence and lower incomes (domestic servants, the self-employed, artisans) [18]. Furthermore, there are significant geographical differences in terms of health facilities: the most urbanized regions enjoy the best facilities while the most rural regions have the worst [18, 19].

The self-employed, voluntary insured, and other groups did not qualify until very recently for occupational risk coverage and sickness-maternity paid leave (they pay for both benefits because they lack an employer) and currently are excluded from severance pay. Peasants are not eligible for those benefits, and their dependents (as is the case with agricultural wage earners' dependents) are not eligible for survivors' benefits. Such dependents are entitled to maternal health care, however. The minimum age of retirement for peasants is 65 years, with 10 years of contribution. On the other hand, railroad, mining, communication, printing, and construction workers, as well as teachers and the armed forces, enjoy supplemental pension programs. Furthermore, entitlement conditions of the privileged groups are much more liberal than those in the general system. Teachers can retire at 52 (three years less than in the general system) and telecommunication workers can retire with 25 years of work at any age (a 40-year-old retiree is legally possible) and the state is expected to pay all costs. The old-age pension in the general system is calculated at 75 percent of the average of the highest salaries received in five years, but teachers receive 100 percent of the average.

Exhibit 15 shows the differences in the average pension received by various insured groups. In 1981, pensions in the public sector and banking were nine percent higher than in the private sector, and the military received an average pension 56 percent higher than that in the private sector. A former actuary of the IESS has stated that in 1983 30,000 military pensioners were paid more than the 120,000 remaining pensioners of that institution, suggesting a much higher ratio of 4:1 [46]. Since 1984, military pensions have been adjusted at the same level of salaries paid to active personnel in the same rank. This unique adjustment, applied in Chile for decades and called *perseguidora*, was eliminated in that country in 1979, to be revived in Ecuador five years later. As a result of that privilege, the gap between the average civilian and military pensions expanded and, by 1989, policemen's pensions were 36 percent higher than in the private sector and military pensions were almost twice as high.

EXHIBIT 15

DIFFERENCES AMONG IESS ANNUAL AVERAGE PENSIONS BY INSURED GROUPS: 1981 AND 1989

Insured Groups	1981 Average Pension (sucres)	1981 Index[a]	1989 Average Pension (sucres)	1989 Index[a]
White and blue collars (private sector)	32,860	100	145,980	100
Civil service and banking	35,880	109	159,432	109
Police	37,056	113	198,924	136
Military	51,277	156	290,448	199

[a] All pensions related to the lowest (private sector).

Sources: 52 updated with 12.

EXHIBIT 16

GENERAL HEALTH FACILITIES AND STANDARDS IN ECUADOR: 1955/1990

	Hospital Beds per 1,000 inh.	Physicians per 10,000 inh.	Mortality Rates General	Mortality Rates Infant[a]	Life Expectancy at birth[b]
1955	--	--	15.4	112.8	48.4
1960	1.6	3.7	14.1	101.1	51.4
1965	2.3	3.2	11.6	92.8	54.7
1970	2.1	3.4	10.5	83.0	56.8
1975	1.9	4.6	7.8	65.8	58.9
1980	1.8	7.8	7.0	63.8	61.4
1985	1.7	11.5	5.4[c]	50.5[c]	64.3
1986	1.7	14.2	n.a.	n.a	n.a.
1989-90	1.6	9.3	4.8	39.5	65.4

[a] Since 1975 only relates to registrations in the same year of birth.

[b] In five-year periods, e.g., 1950-1955 = 48.4.

[c] ECLAC gives 8.1 for general mortality and 69.6 for infant mortality.

Sources: 52 updated with 7, 39, 40, 59, 60.

Health standards significantly improved in Ecuador in 1955/1990. The general death rate declined from 15.4 to 5.4 percent, the infant mortality rate decreased from 112.8 to 39.5 x 1,000 children born alive, and life expectancy at birth increased from 48.4 years to 64.3 years (see Exhibit 16). ECLAC figures on Ecuador's mortality ratesare higher than in the exhibit (life expectancy figures in the table are from ECLAC) and rank that country fourteenth among 25 LAC countries in terms of three indicators (13 countries having better health status indicators than Ecuador). The rate of physicians per 10,000 also improved dramatically in 1960/1986, from 3.7 to 14.2 (it apparently declined to 9.3 in 1989/1990), but the ratio of hospital beds per 1,000 which had risen from 1.6 to 2.3 in 1960/65 declined to 1.6 in 1989/1990. In terms of these two indicators, Ecuador ranked thirteenth in LAC.

But the above overall averages hide significant differences in the availability of health facilities and standards among various groups in society. Exhibit 17 presents several indicators of such inequalities. In 1981, 82 percent of the population (non-insured and with the lowest income) was "covered" by the Ministry of Health (MOH) and public charity (*beneficencias*) which in 1989/1990 had 63 percent of all hospital beds and probably no more than 45 percent of all physicians. On the other hand, the IESS covered 9.6 percent of the population, had 9.9 percent of the hospital beds and 26.9 percent of the physicians. The best facilities were enjoyed by the private sector (5.8 percent of the population, 19.5 percent of the hospital beds and 19.6 percent of the physicians) and the armed forces (2.6, 5.0 and 6.9 percent, respectively). IESS health expenditures per capita in the mid-1980s were 174 percent higher than the MOH's, and the armed forces' per capita was 433 percent higher than that of the MOH [52].

Geographical inequalities in health-care facilities are also significant. In the early 1980s, USAID found that in rural areas the infant mortality rate was twice the national average while the general death rate was 40 percent higher (actual rural rates should be considerably higher due to the under-reporting of deaths); only 10 percent of the rural population had access to potable water and two percent to excreta disposal; and 50 percent of the rural population had limited access to health services or no health care at all. Nearly 50 percent of all mortality was in the zero-to-five age group, although it represented 16 percent of the population; only one-third of all pregnant women received professional prenatal care, 20 percent of all births were attended by trained personnel, and only four percent of children in the one-to-five age bracket received medical care at all.

The pathological profile of Ecuador was, and is, typical of developing countries in that most deaths were caused by infectious, parasitic, respiratory and perinatal diseases or by malnutrition. Diarrheal disease was the major cause of death and about 40 percent of the population under five years of age suffered from malnutrition. These problems were exacerbated by a low level of literacy and the mistrust of modern medicine in rural areas, leading to the low utilization of services even when they were reasonably accessible [49]. Data from INEC and the 1990 population census confirm that such conditions still persist [37, 40].

EXHIBIT 17

HEALTH RESOURCES AND HOSPITAL EFFICIENCY BY SECTORS IN ECUADOR: 1989/1990

Sectors	Covered Population[a] No.	%	Hospital Beds No.	%	Physicians No.	%	Hospital Occupancy (%)[b]	Average Days of Stay[c]
Public Sector	**7,691**	**94.2**	**13,432**	**80.4**	**7,872**	**80.4**	**62.8**	**6.4**
Ministry of Health (MOH)	6,700	82.0	7,740	46.2	3,866	39.5	58.4	5.6
Beneficencias			2,789	16.5	n.d.[d]	n.a.	72.4	7.5
Social Insurance (IESS)	781	9.6	1,659	9.9	2,361[e]	26.9	84.7	8.3
Military & Police	210	2.6	845	5.0	676	6.9	49.4	8.9
Others			454[b]	2.7	699[f]	7.1	n.a.	3.8[g]
Private Sector	**480**	**5.8**	**3,266**	**19.5**	**1,913**	**19.6**	**37.0**	**3.8**
For-Profit	n.a.	n.a.	3,002	18.0	1,606	16.4	55.5	4.2
Non-Profit	n.a.	n.a.	264	1.6	307	3.2	13.6	2.6
TOTAL	8,171	100.0	16,753	100.0	9,785	100.0	59.1	7.3

[a] 1981; data differ from that in Exhibit 3.

[b] Excludes hospitals for chronic diseases.

[c] Municipalities, police, etc.

[d] Included in others.

[e] Includes Peasant Insurance.

[f] Beneficencias, municipalities, ministries, etc.

[g] Municipalities, etc.

Sources: 52, updated with 38, 39, 59, 60.

EXHIBIT 18

HEALTH RESOURCES AND HOSPITAL EFFICIENCY BY REGIONS/PROVINCES IN ECUADOR: 1989/1990

Region/Province	Hospital Beds x 1,000 inh.	Physicians x 10,000 inh.	Hospital Occupancy (%)	Average Days of Stay
Sierra (Highlands)	1.7	10.9	62.1	7.7
Azuay	1.8	13.5	54.9	6.2
Bolívar	0.6	5.6	55.3	6.2
Cañar	1.1	10.7	43.5	4.8
Carchi	0.8	6.0	44.9	4.2
Cotopaxi	0.9	6.2	51.7	6.1
Chimborazo	1.3	7.4	48.0	6.1
Imbabura	1.0	6.5	46.1	4.5
Loja	1.2	7.7	49.4	5.9
Pichincha	2.4	15.0	71.6	9.6
Tungurahua	1.3	6.2	49.1	5.9
Coast (West)	1.6	8.0	57.8	7.2
El Oro	1.2	8.5	40.8	4.4
Esmeraldas	1.0	6.3	36.4	3.8
Guayas	2.2	9.9	63.9	9.2
Los Ríos	0.7	3.8	34.2	3.1
Manabi	0.9	5.8	48.7	3.9
Amazon (East)	1.6	8.5	39.2	4.5
Morona Stgo.	1.0	11.0	46.6	3.4
Napo	2.8	6.8	29.7	5.1
Pastaza	3.2	17.5	44.4	5.3
Zamora Ch.	1.2	6.3	43.4	4.7
Sucumbios	0.2	4.6	109.1	3.5
Galapágos	2.6	16.8	18.5	3.3
TOTAL	1.6	9.3	59.1	7.3

Sources: 52, updated with 38, 39, 59, 60.

A study conducted in 1986 by the MOH (in cooperation with WHO and PAHO) among all municipalities in Ecuador found that there was a significant positive correlation between the levels of industrial/agricultural productivity and urbanization of the municipalities, on the one hand, and the availability of health facilities and quality of care on the other. In addition, the study found that the more developed and urbanized the municipalities, the lower their mortality and morbidity ratios. Conversely, the poorest and most rural municipalities had the worst health facilities and standards [59]. Exhibit 18 confirms that the most rural and poor provinces in Ecuador (Bolivar, Los Ríos, Napo, Zamora, Sucumbios) have the lowest ratios of hospital beds and physicians per 1,000 and 10,000 inhabitants.

The IESS has recently acknowledged that the above is true as well of IESS facilities. There are significant differences among regions on the numbers of hospital beds per 1,000, as well as the number of physicians per 10,000, outpatient consultation, etc. The best facilities are concentrated in urban areas (regions 1 and 2, particularly in Quito and Guayaquil) and the worst facilities in rural areas. Peasant Insurance faces a scarcity of facilities and personnel [18, 19]. IESS data for 1989 show that there are no hospital facilities in the poorest provinces such as Bolívar, Morona, Santiago, Napo, Sucumbios and Zamora Charchi; conversely, the most urbanized provinces have the highest ratios of hospital beds per 1,000 insured (e.g., Guayas 1.9, Pichincha 1.8) [13]. Part of these differences are explicable by the necessary concentration in Quito and Guayaquil of third-level facilities to which patients from first and second levels of attention are referred; but the inequalities are significantly larger than what a reasonable referral system would justify. Despite all this, the IESS hospital construction program is concentrated in the provinces which have the best facilities and health status, thus expanding existing inequalities (see section F-3).

In sum, although the IESS has one of the lowest population coverage in LAC, its expenditures as a percentage of GDP are among the highest in the region (although declining), partly explicable by liberal benefits, entitlement conditions and adjustment of benefits to inflation. This is particularly true of pensions which are among the most generous in the region (e.g., the age of retirement is the third lowest) and take the largest (although decreasing) share of total benefit expenditures. Maternal health benefits are above regional average, but entitlement conditions are average and benefits for dependents are among the worst in the region. The IESS program of severance/unemployment is among the few existing in LAC.

In recent years, there has been some standardization of benefit eligibility, but inequalities in benefits still persist among insured groups: the most powerful groups (e.g., armed forces, teachers, communication employees) enjoy special benefits and qualifying conditions (improved pensions, lower ages of retirement, better adjustment of pensions to inflation) while the least influential groups (e.g., the self-employed, peasants) are not eligible for some benefits

(severance/sickness paid leave in the case of peasants) and endure the total burden of contribution for other benefits (occupational risks, sickness paid leave). Ecuador's health status and facilities (except for the hospital-bed ratio) have dramatically improved in the last 35 years, but national averages hide significant inequalities among occupational groups (health expenditures per capita among the armed forces are five times higher than those of the MOH) and geographical regions (the extreme differential hospital-bed ratio among provinces is 4 to 1).

7.0 EXPENDITURES: ADMINISTRATION COSTS AND EFFICIENCY

IESS administrative costs are among the highest in LAC and the world. The law mandates that no more than five percent of contributions is used for administrative expenses, but the IESS acknowledges that, in practice, about eight percent is actually spent [19]. For many years, the budget request for administrative expenditures has exceeded the financial limit set by law. This proportion has grown steadily from 39.8 percent in 1986, to 41.3 percent in 1987, 58.6 percent in 1988, and an average of 41 percent in 1989/1992 [18, 35]. Furthermore, an international expert has warned of disguised costs, noting that in recent years data on administrative expenditure has excluded the cost of the rental or amortization of buildings used by IESS, an expense which was included in the past [61].

Exhibit 19 offers a summary of the scarce available data, often contradictory, on administrative costs. The percentage of IESS administrative expenditures over current expenditures (total expenditures minus investment) climbed steadily from 11.2 percent to 52 percent in 1975/1987, then declined to 41 percent in 1988/1990. Compared with IESS total expenditures, the administrative share rose from six to 26 percent in the same period. It should be recalled that while both real benefit expenditure and investment declined sharply in 1980/1990 (by 62 and 71 percent, respectively) real administrative expenditures rose sharply by 93 percent [13]. Therefore, bureaucratic expansion is not only reducing the resources available for benefits but is contributing to the decapitalization of the IESS. In 1980/1986 Ecuador was ranked third within LAC in terms of its high percentage of administrative expenditures. Furthermore, the two countries which had higher percentages than Ecuador also had newer programs, thus justifying higher proportional administrative costs [55]. As the previous comparison was based on ILO figures which are smaller than those in Exhibit 19, the present situation should be worse.

The main reasons for the high administrative costs are excessive personnel and generous compensations, overall administrative deficiencies and the high costs and inefficiency of the health program. Escalating inflation has aggravated the problem, pushing up salaries and the cost of imported medicines, surgical equipment and other inputs.

7.1 PERSONNEL: SIZE AND COMPENSATION

In 1988, the IESS candidly acknowledged that it did not know for sure the number, workplace and skills of its personnel. The number of employees was published by the IESS in its statistical bulletin until 1981, and in the institution's yearbook until 1983. A report of IESS activities for 1981/1984 as well as the 1985/1990 yearbooks and a 1985/1989 statistical bulletin did not provide the total number of employees (but gave the number of medical personnel) [10, 11].

Exhibit 19 shows that the ratio of employees per 1,000 insured (total in IESS) steadily rose from 10.4 to 15.1 in 1974/1982 and declined

to 9.6 in 1991, still one of the highest in the region [52]. But the IESS has acknowledged that recent figures refer to permanent employees and, hence, exclude temporary employees hired by contract [19]. The IESS director of human resources reported in 1992 that there were only 1,000 temporary employees [81]. That figure appears to be quite low taking into account that they must fill gaps of the permanent personnel absent on vacation, sick and maternity leave, and training. Furthermore, the figure includes all workers hired for construction and similar chores. Outside experts claim that the total number of employees in 1991 was 20,000 [85], which would elevate the ratio to 11.8 per 1,000 insured.

IESS non-medical personnel increased 65 percent in 1981/1987 (at a much faster rate than in 1979/1981). By 1987 its share of total personnel had increased to 48 percent from 35 percent in 1974 [61]. Since the most dynamic program in expanding IESS population coverage in the 1980s was Peasant Insurance, whose major component is health care, this trend provides further reflection of growing bureaucratization. The last column of Exhibit 19 shows the ratio of employees per 1,000 insured, excluding employees who work in Peasant Insurance; the latter represent 40 percent of the total insured but only seven percent of the total number of employees [15]. The ratios increase significantly, e.g., for 1991: 9.6 (using all employees and insured) and 13.4 (excluding both insured and employees of Peasant Insurance).

IESS personnel are not career civil servants and the institute has no system for hiring, evaluating, and promoting personnel. Employees are hired without prior competition or testing and promotions are seldom based on study or experience. In 1988, 13 percent of the personnel in Peasant Insurance was working without an appointment. A sizeable number of top executives share similar responsibilities, thus increasing administrative costs and creating delays in the decision-making process. Personnel training, such as it is, is inefficient and there is not a well-thought out plan to develop needed skills [19]. An international expert has observed that many employees are either absent or idle, setting a bad example for the rest of the workers and creating productivity and morale problems. This, in turn, leads to a demand for more personnel, creating a vicious circle [61].

It is symptomatic that the 1983/1984 IESS plan included recommendations to create new departments and hire new personnel, as well as external consultants at a cost of half a million dollars, allegedly because qualified institute personnel were pressed for time [49].

As expected, salaries and fringe benefits consume most of the administrative budget. According to the IESS, the remuneration system is "chaotic." There are 1,500 positions and 66 grades in the wage scale as compared to 44 grades in other public sector agencies, and different salaries are often attached to the same job [19]. Overtime is often paid for work done during normal office hours. In 1991 the basic salary accounted for only 39 percent of total compensation; the remaining 61 percent included 42 fringe benefits such as : five extra months of salary (compared with two or three months for most employees in the

nation); subsidies for meals, housing and transportation; a Christmas bonus; health care for the employee's family (a benefit not available for the insured); shops for consumer goods at subsidized prices; treatment of sickness abroad, etc. [35, 61]. The IESS plan for 1983/1984 recommended additional benefits for IESS employees, such as vacation centers, day-care facilities, and fellowships to study abroad [49]. IESS employees also enjoy a private club which reportedly is one of the best in Quito [84].

Within IESS are 108 trade unions which, until recently, negotiated separate collective agreements with the central administration (all employees are union members). A reform of the Labor Code in 1992 allowed for the grouping of all unions under a single committee which negotiated the new collective agreement signed that year. This measure facilitated the bargaining process but strengthened the union. Furthermore, it made available to all IESS employees any benefit that was available to any other union [81].

In 1987 a well-known international expert admonished the IESS "to make a great effort to drastically reduce administrative expenditures, otherwise the institution would be beyond salvation." For that purpose, he recommended a gradual reduction of personnel (prohibiting IESS from filling vacancies); a program of voluntary separations with an incentive for indemnification; strict personnel hiring regulations, promotion and dismissal; training courses with exams; and reduction of fringe benefits [61]. None of these recommendations had been implemented five years later.

EXHIBIT 19

IESS ADMINISTRATIVE COSTS AND EMPLOYMENT: 1975/1991

	Budgeted Expenditures (million sucres)			Percent Administrative over:		Total IESS			Excluding Peasant Insurance		
Year	Total	Current	Administrative	Total	Current[a]	Number of Employees[b]	Number of Insured (thousands)	Employees per 1,000 Insured	Number of Employees	Number of Insured (thousands)	Employees per 1,000 Insured
1975	n.a.	2,672	300	n.a.	11.2	5,898	519	10.4	10,077	n.a.	n.a.
1980	22,987	10,627	1,264	5.5	11.9	10,225	746	13.7	11,011	658	16.7
1981	25,536	11,291	1,745	6.8	15.4	11,165	786	14.2	12,036	695	17.3
1982	27,854	12,588	2,205	7.9	17.5	12,290	813	15.1	11,752	716	16.4
1983	32,558	16,744	2,567	7.9	15.3	12,095	911	13.2	11,685	758	15.4
1984	46,847	23,233	3,163	6.8	13.6	12,232	1,057	11.6	11,752	812	14.4
1985	59,203	30,945	11,613	19.6	37.5	12,424	1,148	10.8	12,234	834	14.7
1986	80,685	41,624	19,989	24.8	48.0	13,053	1,226	10.6	12,270	877	14.0
1987	91,221	53,742	27,940	30.6	52.0	13,147	1,312	10.0	12,752	928	13.7
1988	124,108	74,889	30,384	24.5	40.5	13,690	1,398	9.8	13,183	975	13.5
1989	176,929	114,882	47,287[c]	26.7	41.2	14,190	1,472	9.6	13,183	1,022	12.9
1990	287,956	180,683	73,866[c]	25.6	40.9	14,761	1,554	9.5	13,592	1,073	12.7
1991	n.a.	n.a.	n.a.	n.a.	n.a.	16,400[d]	1,702	9.6	15,070	1,126	13.4

[a] ILO data on all social insurance expenditures (including civil servants and armed forces give higher percentages: 23.7% in 1980, 25% in 1981, 28% in 1982, 22.6% in 1983 [42].

[b] Usually refers to permanent employees, hence, excluding temporary labor hired to fill absent personnel for vacation, sick leave, etc.

[c] IESS reported only 13,395 and 20,482 million sucres for 1989 and 1990, as well as higher total expenditures, resulting in percentages of 7.8% and 6.8% respectively [11]. Another source gave 37,755 million for 1991 for 7% [35].

[d] Other sources give 17,000 and 20,000 employees [85].

Sources: 12, 13, 52, 81, 85.

7.2 ADMINISTRATIVE EFFICIENCY

We have already seen that social insurance legislation in Ecuador is excessive, complex, unsystematized and contradictory, and that recent attempts to reform this legal labyrinth have not accomplished the task. Also little is known about the outcome of court suits (e.g., against employers on *mora*).

There exists a unified social insurance system in Ecuador in theory, but, in practice, the separation of Sections A and B continues. There are diverse contributions and benefits for the multiple groups of insured, and several units performing similar functions have proliferated [19].

The regionalization of the system, although well intentioned, was conducted without a proper plan and organization, thus creating administrative confusion. In addition, one expert suggests that regionalization may have been used justify an increase in IESS personnel [19, 61].

There is excessive central control. Bidding procedures are extremely cumbersome and legalistic. Requiring as much for the purchase of aspirin as for the construction of a hospital, the bidding process can take an inordinate amount of time. It also favors big business and pushes prices up. Medical garments and other needed IESS clothing were originally produced inexpensively by women working at home. But when bidding was required, large firms started to operate as intermediaries, hiring the same homeworkers and charging a substantial profit for their services [49]. Inept bidding practices create bottlenecks and delay the supply of medicines and goods. This is compounded by a lack of inventory control which creates shortages and spoilage [19].

As there is no integrated system of accounting, one department is often unaware of data generated by another. Top officials are often confused by accounting data. During my visits in 1992, I spent almost two hours discussing a single accounting report without ever receiving clarification. Some IESS officers candidly acknowledge the urgent need to consolidate and simplify the accounting system using qualified experts. In the mid-1980s, however, an outside accounting expert reportedly spent an entire year at IESS without effecting any improvement [78, see section G].

We have already noted the important expansion of computer equipment and personnel in the 1980s. There are indications that both resources are seriously underutilized, apparently for lack of know-how. Until 1984, the equipment (the biggest in Ecuador) was rented from IBM on a yearly basis; in 1984 the rent was 249 million sucres, plus 280 million sucres for terminals and supplies (equal to U.S. $8 million at the 1984 rate of exchange). But access to the system was limited, the budget department used it once a month, and many calculations were done manually and then entered into the computer only for printing [24]. Additional computer equipment was bought or rented in the late 1980s and early 1990s, but by mid-1992 many key operations were still conducted manually— among them

treasury functions, processing of old-age pensions, distribution of supplies, handling of data prior to 1988, etc. In a long discussion in 1992, two top IESS computer experts could not give me any idea as to when several important activities (e.g., individual accounts, cleaning of the registry) would be computerized [76].

Finally, as there is not a single ID for social security, taxes, or other fiscal activities, it is not possible to cross check data, and there are no plans to do so in the immediate future. Until the completion of all individual accounts is accomplished, it will not be possible either to effectively control evasion and *mora*. An outsider claims that the monthly payment of pensions is largely handled by hand, not fast enough to cancel payments to beneficiaries who have either died, changed their civil status or reached adulthood. The complex, legalistic procedure for awarding pensions and other cash benefits is aggravated by the involvement of numerous departments, thus delaying the process by as much as two to four years [1, 3].

7.3 COST AND EFFICIENCY OF THE HEALTH PROGRAM

We have already seen that, despite a significant improvement in health standards, Ecuador still does not compare favorably with other regional countries. This is due partly to inequalities in health care services, particularly among urban and rural areas. The focus of the IESS' health program is simply incompatible with the current situation: stressing predominantly curative medicine, the program is addressed mainly to urban groups in the 20-to-55 productive age bracket, the group with the lowest health risk. For instance, the percentage distribution of outpatient consultation by age in 1990 was: 4.4 percent for children of less than one year to age 14, 74.3 percent from 15 to 54, and 21.3 percent for those 50 and older. In the early 1980s, 98 percent of IESS expenditures went to the urban sector; no more recent data are available. Little is spent on preventive medicine, the IESS covers very few pregnancies, and, despite Peasant Insurance, coverage of the rural population is still minimal. A shift of health resources towards the more vulnerable infant-maternal group, rural areas, preventive medicine, health education, nutrition, and sanitation would have a significant impact in reducing infant mortality and improving other national health standards [11, 32, 49, 71, 72].

Several indicators suggest overbuilt capacity, as well as overutilization and inefficient use of health facilities. The national rate of hospital occupancy declined from 71 to 59 percent in 1971/1990, together with a decrease in the average days of stay from 13.1 to 7.3. According to Exhibit 18, in 1990 86 percent of Ecuador's provinces had lower occupancy rates than the national rate of 59 percent and those provinces with the highest rates —Pichincha and Guayas, with 71.6 and 63.9 percent, respectively— also had the highest average days of stay (9.6 to 9.2), a sign of poor diagnostic practices and inefficient management. Within the public sector, military hospitals had both the lowest occupancy rate (49.7 percent; three military hospitals had rates of 14.9, 19.6, and 25.6 percent), and the highest average days of stay: 10.5 [52].

IESS hospitals have the highest occupancy rate in the nation— 84 percent in 1979, 82.7 percent in 1981, 83.3 percent in 1985, and 84.2 percent in 1989 (Exhibit 20). But the average days of stay is above the national average, although declining from 9.8 to 8.3 days in 1979/1989). In the latter year, all IESS hospitals except three in Quito, Guayaquil, and Cuenca had lower occupancy rates than the overall IESS rate, and three hospitals had rates below 63 percent. These indicators suggest inefficiency [18]. Occupancy rates in Quito and Guayaquil were the highest in the nation (93 and 89 percent) but so were their average days of stay (10 and 9.4). To cope with overcrowding in Quito and Guayaquil, the IESS is entering into contracts with private facilities; enterprise ambulatories also are playing an increasing role in reducing congestion [9, 74]. The high averages of stay are partly explained by the fact that these national hospitals are of third level of attention and receive patients who travel long distances and hence require a longer period of stay for diagnosis and post-operatory recovery. But even taking this factor into account, those averages are still high by international standards and, if reduced to more normal levels, would have reduced the occupancy rates as well.

Another indicator of IESS inefficiency is the average number of annual per-capita outpatient consultations— it was 3.4 in 1980. This is high for an insured population in a low health risk bracket. Furthermore, the actual figure would have been higher had a number of insured not used private, rather than IESS, facilities. In contrast, per-capita consultations in the MOH and Peasant Insurance — which cover populations groups in a higher health risk bracket — were significantly lower at 1.4 in both. The average number of IESS per capita consultations, however, declined to 2.4 in 1990, while that of Peasant Insurance decreased to 1.0 [11, 15] (Information on this indicator was not available for the MOH). The IESS states that significant non-explained differences exist on outpatient per capita consultations, among regions and facilities, providing yet another indication of lack of control and inefficiency [19].

According to IESS, many hospitals suffer from obsolete equipment and poor maintenance. One top IESS official said in 1992 that maintenance is virtually non-existent and that there are no skilled personnel in this area: "Four employees per bed looks wonderful on paper, but many are in administration rather than in medical care or maintenance," he explained. Newly-bought equipment only carries maintenance contracts for the first year [74]. One outside expert has added that it takes years to respond to a request for repair or the substitution of equipment. Excessive complexity and irregularities in bidding for the equipment has also been reported. Finally, the need to transfer a patient from an IESS hospital (without the needed equipment) to a private hospital costs millions of sucres [3, 19, 74].

IESS ambulatories used to lack sufficient resources for diagnosis and treatment. This induced many of the insured to skip this first level of attention and go directly to hospitals, causing overcrowding of outpatient facilities. This problem, however, has improved in recent years as new ambulatories have opened and the insured have been prohibited from using

outpatient facilities at hospitals unless referred by a physician [74]. A lack of control or the absence of a patient's medical history often results in a duplication of attention, further increasing costs. Quotas for consultations at IESS ambulatories prompt the physicians to make rapid diagnoses and prescribe improper drugs in order to fill IESS quotas and quickly return to their private practice [19, 61].

Requests for medicines and other medical inputs are sent late in the year (because budgets are late), and there are long delays in actual supply. A scarcity of these goods at IESS facilities is a common problem, therefore, and since the insured has the right to turn to private pharmacies when medicines are not available at IESS, costs soar, e.g., 297 million sucres in 1981/83 (U.S.$9 million). The lack of inventory control also causes losses. Unnecessary medicines are bought, as well as medicines already in stock while other essential medicines sit on the shelves and become obsolete. The chronic scarcity of supplies provides an incentive for hospitals to hoard, thus aggravating the scarcity and problems of obsolescence. Regionalization seems to have aggravated, rather than improved, the situation [3, 19, 61, 74].

The cost of per capita health care at IESS in 1980 was 3,309 sucres compared to 482 in Peasant Insurance and 342 in the MOH. The ratio between IESS and MOH expenditures (as well as IESS/Peasant Insurance) was almost 10 to 1. In 1986, the gap between IESS per capita expenditures (10,573 sucres) and Peasant Insurance's (2,112 sucres) was halved, producing a ratio of five to one, but the gap was still significant. In 1987, the cost per hospital bed among IESS facilities fluctuated from 3,360 to 22,500 sucres and cost per insured ranged from 2,000 to 31,000 sucres. In 1990 the ratio of physicians per 10,000 insured was 16 at IESS but only one at Peasant Insurance. The latter also has a more rational distribution of insured by age group: 19 percent from less than one year to five, 26 percent from six to 14, 43 percent from 15 to 49, and 12 percent for those 50 and older [11, 15, 18].

Extending the costly IESS model of social insurance to all the Ecuadorian population would require from 23 to 34 percent of GDP. Obviously the MOH and Peasant Insurance models are more affordable to the nation than the IESS model. A brief discussion of the Peasant Insurance health program will pinpoint its advantages and problems.

EXHIBIT 20

IESS HOSPITAL EFFICIENCY IN PROVINCES: 1979/1989

Province	Percent of Occupancy				Average Days of Stay			
	1979	1981	1985	1989	1979	1981	1985	1989
Carchi	a	a	a	a	a	a	a	a
Imbabura	68.1	67.7	62.4	56.0	8.3	8.5	6.3	5.1
Pichincha	96.3	92.6	93.3	93.3	11.3	10.2	10.0	10.0
Cotopaxi	76.3	62.9	57.6	62.2	8.2	7.4	7.5	5.9
Tungurahua	54.9	59.1	72.2	80.1	6.3	5.7	6.0	5.8
Bolívar	a	a	a	a	a	a	a	a
Chimborazo	70.7	74.8	79.9	83.3	8.1	8.5	8.8	7.6
Cañar	a	a	a	a	a	a	a	a
Azuay	81.7	86.5	86.3	85.3	8.0	8.0	8.2	7.5
Loja	80.3	70.3	67.2	86.4	7.3	6.6	7.6	7.9
Esmeraldas	53.5	59.1	64.5	72.7	5.1	5.0	5.5	4.5
Manabi	77.1	78.7	71.0	83.2	6.6	6.9	6.6	5.5
Los Ríos	30.2	51.5	49.4	62.9	4.8	5.5	5.1	5.4
Guayas	85.4	83.3	88.0	88.7	10.8	10.9	9.3	9.4
El Oro	45.1	60.9	64.5	77.8	5.8	5.7	5.2	5.8
Napo	a	a	a	a	a	a	a	a
Pastaza	a	17.3	36.9	45.1	a	4.6	5.2	5.5
Morona Stgo.	a	a	a	a	a	a	a	a
Zamora Ch.	a	a	a	a	a	a	a	a
Galápagos	a	a	a	a	a	a	a	a
TOTAL	84.0	82.7	83.3	84.2	9.8	9.3	8.7	8.3

[a] There is no IESS hospital.

Sources: 11, 13, 49, 52.

The Peasant Insurance Division is administratively independent of the IESS National Division of Medicine and enjoys significant autonomy within IESS. This has allowed it to move away from a traditional health-care orientation towards a program of primary health care with a relatively inexpensive infrastructure. The rural health post is established only where there are no other available health facilities, a minimum of 1,200 heads of household, and access roads, and after social workers verify that the community understands and approves the program. Initially, the health post functions in a private home and later —if the community so desires— in a small building, erected with a basic frame supplied by IESS, and with land, local materials and manpower furnished by the community. Medical —including maternity— and dental care is provided by auxiliary personnel with the assistance of a travelling physician who covers several posts and comes from a nearby town. The post personnel is also involved in prenatal care, health education and immunization. Patients who cannot be treated in the post are transferred —according to the complexity of the case— to the area ambulatory or to a closer urban ambulatory or regional hospital (located in Quito, Guayaquil, Cuenca, and Riobamba).

Despite its obvious advantages, the Peasant Insurance program faces several problems which have been aggravated by the national economic recession and the IESS crisis:

- The program only covers 14 percent of the rural population and it discriminates against the more dispersed, isolated, and poorer rural population; expansion to those groups/areas requires modification of the current health care model to incorporate the community as a whole, increase its participation and adapt benefits and services to their needs;

- References or transfers are few and have declined in recent years, there are complaints about different treatment at hospitals between peasants and IESS insured, and peasants often refuse to transfer to the hospital due to cultural barriers;

- The number of immunizations is low and has declined in the last four years, mainly due to a lack of vaccines which are supplied by the MOH. The percentage of the target children population immunized in 1990 was: polio and DPT, 20 percent, and measles, 16 percent;

- Also due to insufficient resources, prenatal and delivery care peaked in the first half of the 1980s and declined in the second half; annual outpatient consultation has decreased as well;

- Hospitalization services are relatively costly because they are bought from IESS, MOH or private facilities; and

- Some health indicators (e.g., morbidity) exhibited improvement in the late 1970s and early 1980s, deterioration in the mid-

1980s and some recovery at the end of the decade but still without achieving the 1980 level [31, 52, 75].

Another problem is the lack of coordination between public health facilities, particularly IESS and MOH. Frequently a province has a higher IESS occupancy rate than the overall occupancy rate. Integration, or at least coordination, of health services in these provinces could significantly reduce health costs. The MOH rural program and the Peasant Insurance program were developed without coordination and at times were organized in the same region. Health policy makers have not seriously considered the merging of underutilized MOH and armed force hospitals with those of IESS to create a national health service. The National Health Council has not decisively acted on this issue; furthermore, its composition is not conducive to a change in the traditional health policies since physicians and urban interests predominate in the Council, on which users, smaller towns, and the peasantry have no representation.

Finally, current IESS investment in the construction and equipment of hospitals will not significantly reduce most existing inequalities. Exhibit 21 presents a summary of IESS hospitals under construction based on a program which began in 1985 but was far from being completed by 1992. In the later year, the physical plant of one of 11 hospitals was finished, equipped, and fully operational. Investment in the 10 projects in 1985 totalled 10.6 billion sucres (U.S.$152 million at the 1992 rate of exchange). This sum equalled 77 percent of total IESS investment (excluding Guayaquil and Peasant Insurance); the remaining 23 percent involved construction of 36 minor hospitals and ambulatory clinics as well as the equipment of 84 units.

More than 49 percent of the investment was to go to Quito and cuenca, the provinces with the highest IESS coverage and the best hospital facilities in the country. The plan contemplated the addition of 1,000 hospital beds in these two cities, two-thirds of the total number of the existing hospital beds in the country. These two projects were quickly discarded after a World Bank mission criticized the investment.

Three hospitals (Ibarra, Latacumba, and Riobamba) took 22 percent of the investment. All are located in provinces with IESS coverage lower than that of Pichincha and Azuay but higher than the national average. The 500 hospital beds in these three units equaled one-third of all existing beds in 1990. There was a better case for the construction of these hospitals than those in the first group but, certainly, they are not in the most needy provinces and better coordination and use of all health facilities available would have helped to solve the problem. In 1992 none of these hospitals were yet in operation.

Finally, investment in four hospitals (Ambato, Loja, Manta, and Esmeraldas) took 29 percent of the investment. Only one of these hospitals is located in a province where IESS coverage is below the national coverage (Ambato); the rest are slightly above the national average. The combined number of beds in these hospitals probably is higher than one-third of existing facilities. Of the three groups, these hospitals seem to be the most justified. Seven provinces with lower population coverage than those four still lack hospitals, however. In 1992 only the Loja hospital was fully operational.

EXHIBIT 21

IESS HOSPITAL CONSTRUCTION: 1985/1992

Hospital	Province	Investment 1985 (million sucres)	Investment 1985 % distribution	Percent of population covered in province	No. of Hospital Beds	Status in May 1992
Quito South	Pichincha	2,291	35.1	23.4	500	Plan discarded
Quito North	Pichinch a	1,441	13.6	23.4	500	Plan discarded
Cuenca	Azuay	1,444	13.6	21.8	300	Starting building physical plant
Ambato	Tungurahua	1,441	8.6	10.8	300	Needs 2 more years of work
Ibarra	Imbabura	920	7.3	15.8	220	Finished but not equipped
Latacumba	Cotopaxi	776	7.1	18.1	130	Finished but not equipped
Esmeraldas	Esmeraldas	756	6.6	17.0	n.a.	n.a.
Riombama	Chimborazo	705	5.1	19.2	180	Needs equipment to start operation
Manta	Manabi	543	3.0	16.2	120	Partly in operation
Portoviejo	Manabi	n.a.	n.a.	16.2	120	Needs equipment to start operation
Loja	Loja	321	3.0	17.2	n.a	In full operation
TOTAL		10,638	100.0	16.1	2,370	

Sources: 16, 24, 52, 74, Exhibit 4.

In 1984, a World Bank mission recommended that:

- The completion of construction and equipment of these hospitals be conditioned on the coordination and increased efficiency of existing facilities as well as an evaluation of the real need for additional facilities;

- Priority be awarded to the construction of rural posts and small ambulatory units, the maintenance of existing facilities, and the urgent re-equipment of all facilities; and

- Priority be given to projects designed to foster primary health care and benefit rural areas instead of advancing curative medicine in urban areas. Eight years later, these recommendations appear as sound and valid as ever.

In summary, high and growing administrative expenditures are the major cause of the increasing cost of social insurance in Ecuador. As a percentage of current expenditures, they peaked at 52 percent in 1987, and although declining to 41 percent in 1990, they still rank among the highest three in LAC. Excessive personnel is a major reason of high administration costs. The ratio of IESS employees per 1,000 insured climbed in the 1970s, peaking at 15 in 1982. Thereafter, the ratio declined to 9.6 percent in 1991 (13.4 percent, excluding the insured and employees of Peasant Insured), still one of the highest in the region. Salaries represent the largest share of administrative expenses. The basic salary accounts for 39 percent of total compensation while the remaining 61 percent represents generous fringe benefits, most of them not available to the insured.

The IESS health program is out-of-step with the needs of the country, concentrating on urban areas, curative medicine and the age group with the least health risks. The overall inefficiency of the health program is reflected in excessively long hospital stays, low occupancy rates in most hospitals, obsolete or inoperative hospital equipment, and a chronic shortage of medicines at IESS facilities which prompts patients to use more costly private pharmacies. IESS per capita health costs are five times those of Peasant Insurance and also higher than those of the MOH. Extension of IESS coverage to the whole population, based on current costs, would require from 23 to 34 percent of GDP. The MOH and Peasant Insurance health care models are both cheaper and more feasible.

In 1985 about half of the investment for construction and equipment of 11 IESS hospitals was allocated to provinces with the highest population coverage and number of hospital facilities, while only 28 percent of investment was allocated to provinces with lower population coverage and fewer facilities, but still not those in most urgent need. In May 1992 only one of those hospitals was fully operational. The coordination of IESS, MOH, armed forces, and *beneficencia* health facilities would maximize existing resources and reduce costs.

8.0 FINANCIAL AND ACTUARIAL EQUILIBRIA

A fundamental problem in evaluating the financial and actuarial status of the IESS is the absence of adequate data. The law prescribes that an actuarial balance be conducted every three years [6]. In 1987 Peter Thullen, former head of the ILO social security division and a frequent actuarial advisor of IESS, complained that the latest *accounting* balance he was able to obtain was for 1983, and that the lack of such balances for 1984/1987 was "unacceptable, particularly for an institution in crisis" [61]. Two years later the IESS acknowledged that the most recent accounting balance available was for 1984 but that balances for 1985 to 1987 were being prepared [22]. Thus, there was a six-year delay in the completion of basic IESS financial data.

Normally, available financial data are incomplete and confusing and fail to give an overall view of the situation. For instance, state obligations are usually reported as budgeted income and, in the final (executed) budget, state payments based on both annual contributions and debt agreements are lumped together, making evaluation difficult. Another problem is the lack of a single, comprehensive, and consistent series on investment, as well as on the state debt and *mora*. But perhaps the most serious complication is the dubious transfer of funds to the maternal health program from other IESS programs —mostly pensions and severance- which generate surpluses.

The accounting base is further weakened by the lack of accurate data on the demographic characteristics of the active insured and the pensioners. For the 1988 overall evaluation of the IESS, the Actuarial Division was unable to gather sound data, thereby illustrating the need to restructure the division [19]. These problems have impeded the timely preparation of legally mandated actuarial reviews which, when made, have often suffered grave and crippling errors.

Exhibit 22 presents all the data made available to me on specific programs for the period 1980/1990. Apparently, Peasant Insurance is not included in the exhibit and it is not clear which program surpluses cover the maternal health deficit. Prior data, for 1975/1979, indicates that all programs (including maternal health) generated surpluses with the exception of the military-police program in 1975 and 1977/1978 [62]. According to Exhibit 22, six programs generated surpluses throughout 1980/1990, including severance, additional insurance, contracted insurance, funeral aid, other insurance, and other funds. These programs generated a combined surplus of 60 billion sucres in 1989. The most important surpluses were generated in all years by the severance program, except in 1990, and the additional insurance program (*fondo de reserva*).

Three programs suffered deficits:

- Maternal health, which showed increasing deficits throughout the period, reaching an historical peak in 1990;

- Military and police, which recorded yearly deficits with the exception of 1984/1985, also reaching a peak in 1988; and

- Pensions, which showed deficits in 1983, 1988 and 1990.

All three programs combined recorded a deficit of 18.4 billion sucres in 1989, which was covered by the surpluses generated by other programs. The overall financial balance generated a surplus throughout the period but, in constant sucres, it peaked in 1984 before declining by 77 percent in 1990. If the 1984/1990 trend continues, 1992 or 1993 should show an overall financial deficit.

EXHIBIT 22

FINANCIAL BALANCE[a] OF IESS PROGRAMS: 1980/1990
(million sucres)

Programs[b]	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
General (Pensions)	1,193	1,201	1,583	(27)	10,764	6,334	3,129	17,968	(1,411)	2,511	(3,883)
Maternal Health[c]	0	0	(981)	(693)	(1,392)	(2,282)	(700)	(3,278)	(6,088)	(17,078)	(21,164)
Severance	1,946	2,370	3,037	3,403	5,964	6,883	8,618	10,583	13,267	20,974	20,998
Additional Insurance	1,323	1,358	1,576	1,936	3,560	5,993	5,079	6,435	14,733	19,187	25,692
Military & Police	(538)	(701)	(786)	(841)	4,003	1,416	(1,149)	(1,121)	(4,217)	(1,273)	(9)
Contracted Insurance	417	557	675	956	4,326	3,032	2,009	5,509	2,888	7,357	8,242
Funeral Aid	449	592	769	927	1,508	1,880	2,412	2,888	3,916	6,913	8,148
Other Insurance[d]	319	618	985	1,238	1,850	2,068	2,379	3,780	3,253	2,944	n.a.
Other Funds	30	25	11	0	0	479	200	0	n.a.	n.a.	n.a.
TOTAL (current sucres)	5,033	6,096	7,771	7,593	32,464	25,803	22,077	42,764	26,341	41,535	63,080
TOTAL (1980 sucres)	5,033	5,442	5,964	3,926	12,796	7,954	5,524	8,265	3,217	2,888	2,953

[a] Income minus expenditures. All figures are final except maternal health which are budget data because final figures could not be obtained. Data does not take into account potential payment of state debt. The Actuarial Office provided data for 1986/1988 completely different than that in the table which inflated the surplus balance.

[b] Excludes Peasant Insurance.

[c] These deficits are covered by other programs (mostly pensions) and, hence, the maternal health line is not included in the total.

[d] Probably includes occupational risks.

Source: 52, updated with 35.

Exhibit 23 compares the cumulative surplus of all IESS programs (except Peasant Insurance) in 1974 and 1990, in constant 1974 prices. Although the reserves increased 1,278 percent in current prices during the period, constant prices declined only 46 percent. Changes in the reserves of the various programs —in constant prices, both in absolute terms and in their share of the total reserve— in 1974/1990 were as follows:

- The pension reserve declined by 78 percent (absolute) and its share of the total reserve from 44.4 to 18.3 percent, thereby slipping from first to third place;

- The military-police reserve declined by 79 percent;

- The severance reserve declined 7.4 percent but its share of the total reserve rose from 15.7 to 27 percent, thus moving up from third to first place;

- The additional insurance reserve declined 26 percent while its share of the total reserve increased from 15.9 to 21.9 percent, making it the second largest;

- The funeral aid reserve decreased 4.8 percent and did not change position; and

- The reserve of other insurance increased 22 percent while its share of the total reserve increased from 3.3 to 7.5 percent.

EXHIBIT 23

CHANGE OF IESS CAPITAL RESERVES IN CURRENT AND CONSTANT PRICES BY PROGRAMS AND TOTAL: 1974 and 1990 (in million sucres)

Programs[a]	Current Prices		Constant Prices (1974)		% distribution	
	1974	1990	1990	% Change	1974	1990
General (pensions[b])	4,906	71,527	1,088	-77.8	44.4	18.3
Severance	1,734	105,622	1,606	-7.4	15.7	27.0
Additional Insurance	1,763	85,806	1,305	-26.0	15.9	21.9
Contracted Insurance	1,221	58,969	897	-26.5	11.0	15.1
Funeral Aid	517	32,326	492	-4.8	4.7	8.3
Other Insurance[c]	368	29,529	449	22.0	3.3	7.5
Other Funds	8	n.a.	n.a.	n.a.	0.0	0.0
Military & Police	554	7,603	116	-79.1	5.0	1.9
TOTAL	11,071	391,383	5,951	-46.2	100.0	100.0

[a] Excludes Peasant Insurance.

[b] Covers most of the deficit of maternal health which had a cumulative of 58,700 million current sucres in 1991.

[c] Probably includes occupational risks.

Source: 52, updated with 13, 35.

8.1 THE FINANCIAL CRISIS AND ITS CAUSES

According to a report released in 1989 by the IESS Economic-Financial Division,"the financial crisis is an irrefutable fact" [18]. In the 1980s, total expenditures have grown at a much faster rate than total revenues, creating deficits in the general program (pensions) and worsening the deficits in maternal health and military-police programs. A general deficit has been avoided thus far because of still substantial surpluses in other programs, particularly severance, additional and contracted insurance.

Collected income has been lower than expected due to:

- The state debt, which is paid with devalued currency and real negative interest rates, thus squandering the opportunity to invest profitably the sums owed by the state;
- The *mora* from private and other public employers, increasing in the 1980s due to inflation and negative real interest charged to delinquent employers;
- Real negative investment yields, partly due to high inflation and partly to inefficient investment (particularly in mortgage and personal loans);
- An insufficient contribution to finance the maternal health program and transfers from pensions and other programs to cover the resulting maternal health deficit;
- Increasing unemployment rates in 1980/1990 (from 5.6 to 14.3 percent) as well as informal employment, and the decline in real wages (the real minimum wage decreased by 56 percent in the same period), both of which have reduced the number of contributors and the income paid in; and
- Expansion of population coverage, mostly through Peasant Insurance which covers a low-income population and makes only a minor contribution [7, 8, 19, 27, 57, 61].

Actual expenditures have increased more than expected because of:

- The addition or liberalization of benefits without the provision of offsetting revenue (this includes the adjustment of benefits above inflation for a period);

- The increasing maturity of the pension program (the percentage of pensions in total benefit expenditure rose from 59 to 76 percent in 1972/1983);*
- One of the most costly administrative programs in LAC due both to the contracting of excessive personnel as well as generous salaries and fringe benefits;
- Deficit financing and the general inefficiency of the maternal health program;
- The allocation of a declining proportion of revenue to investment in the face of rising expenditures; and
- Growing costs of imports due to monetary devaluations [19, 27, 54, 61].

The conclusions of the IESS 1989 report were as follows:

- The current financial surplus should not create the illusion that there is no crisis and hence no need for corrective measures and sacrifices;
- The reserves of the pension program are practically depleted;
- Programs which currently enjoy surpluses will not be able to continue to subsidize deficitary programs;
- If the state pays its current debt and continues to pay its obligations promptly in the future, by 1993 total IESS expenditures will exceed total income, thus producing a total deficit;
- If the state does not pay, then the total deficit may occur in 1989 or 1990; and
- The use of reserves to cover the deficit will lead to the decapitalization of the fund and the need to shift it to a pay-as-you-go status [19, 27].

* In 1980, the ratio of active to passive in Ecuador was the seventh lowest in Latin America (the Ecuadorian ratio declined from 8.2 to 6.8 in 1965/1980), behind Uruguay, Argentina, Chile, Cuba, Brazil, and Bolivia. In all these countries (except in Bolivia) social security coverage is universal, or close to it; hence as the number of pensioners increased, the ratio declined. Conversely, Ecuador has a small percentage of the population covered, thus the incorporation of insured (mostly peasants, in the 1970s and 1980s) induced an increase in the ratio from 6.8 in 1980 to 7.2 in 1991 (see Exhibit 3). However, the bulk of new insured was peasants; if this group is excluded, the ratio kept declining in 1975/1991, down to 6.4 in the latest year. Furthermore, contributions are low for the peasant program as well as other groups of low-income insured recently incorporated (self-employed, agricultural workers, domestic servants).

8.2 ANALYSIS OF THE FINANCIAL/ACTUARIAL EQUILIBRIA BY PROGRAM

8.2.1 Pension Program

Ecuador's legislation prescribes that an actuarial balance of the pension fund be prepared every three years, an obligation which has not been fulfilled. The first actuarial balance, prepared by an ILO expert in 1941 with 1938 data, estimated that the public pension fund had an actuarial deficit of 40 million sucres. (Apparently, a second actuarial balance estimated a deficit of 109 million sucres, but this could not be confirmed). The 1941 actuarial balance assumed that wages and pensions would be held constant, a utopian premise in view of subsequent inflation. It also recommended that the experience accumulated in the next five years be used to prepare the technical actuarial base of the system, but that was never done. In 1955 and 1957, actuarial balances were prepared for the public and private pension funds with data up to mid-1951. Both studies also assumed that wages and pensions would be held constant. Although it was not possible to ascertain the result of these balances, it is known that the state obligation to pay 40 percent of the cost of pensions was subsequently adopted, a sure sign that the actuarial deficit continued and probably had worsened. Subsequent actuarial studies, done in 1967 and 1969, have been discarded as superficial and incomplete.

Legally, the pension program is fully-funded; i.e., it applies the general-level-premium method (in the 1941 actuarial balance, the period of equilibrium was 40 years). But in 1971, the IESS actuary recommended a shift to the scaled-premium method which has been in practice since then.

In 1982, a new actuarial balance was done, based on data to the end of 1980, and the period of equilibrium was reduced from 40 to 20 years. The 1982 balance estimated the actuarial deficit of the pension program at 458 billion sucres and attributed the causes of the deficit to the following: the addition of three monthly pension payments; the increment in pensions and concession of dismissal pensions without previous actuarial studies; the use of funds from the general pension program to pay pensions of the armed forces, teachers, and communication, railroad and printing workers; the huge state debt to the pension program as employer and as third-party contributor, and payment of such debt under onerous conditions for IESS; and the low real yield of investment which did not maintain the real value of the reserve. To correct the deficit, the study recommended that the insured pension contributions of Sections A and B be unified, raising both to 9 percent; the minimum retirement age be increased to 60; the dismissal pension be eliminated; the investment yield be increased; the state debt be controlled and the actuarial balance of special

pension programs be assured. The study's principal recommendation, however, was a debatable one: to defer capitalization of the actuarial deficit, taking into account future income and pension expenditures of new generations of insured in the next 20 years.

The 1982 balance was the subject of criticism based on alleged theoretical, statistical and methodological flaws. It is not possible to review all these criticisms here, but one of them resulted in the reduction of the actuarial deficit to 266 billion sucres. The most important charge was that the actuarial equilibrium should have included the new generations of insured in the 20-year period *before* estimating the deficit. Methodologically, this criticism was proper; however, the new equilibrium estimated by the 1982 actuarial study, after the incorporation of the new insured, did not alter the situation, since the projected income and expenditures of this group was balanced out. The point is that the study recommended this as the principal way to correct the deficit, when it actually did not change it.

Whether the 1982 study was accurate or not in estimating the size of the actuarial deficit, there was little doubt that such a deficit existed and that it was substantial. The cited causes of the deficit were real and worsened in 1983/1991. By law, work on a new actuarial balance with data up to the end of 1983 should have begun in 1984 and, although the 1982 study promised that computerization would simplify the task, nothing had been done by the end of 1984 [49].

The IESS and the ILO signed an agreement for technical cooperation in 1985/1986 which included an actuarial analysis of the pension program. Thullen was assigned to the task, but he so twice rejected the figures submitted by the IESS Actuarial Division on grounds they were "incomplete and inconsistent" [61]. The ILO then hired two actuaries in Mexico who produced an actuarial analysis in October 1987. (I have been unable to obtain this document and the current IESS actuary assured me that she has never seen it either [79].) That analysis acknowledged decapitalization of the pension fund and recommended a series of measures, most of them quite vague: to separate the pension program from other IESS programs; to apply the scaled-premium method for a period of equilibrium of 10 years with an increased contribution; to improve investment portfolio composition and yield; to increase the retirement age; and to modify the survivors' pension, the three extra monthly pensions and the special retirement pension.

Thullen evaluated the Mexican report and detected two serious errors: first, it used the total IESS reserve rather than the pension reserve, which was only 15.7 percent of the total, and, second, its method of fixing the contribution for the 10-year period of equilibrium was incorrect in that the actuarial interest rate set at 10 percent was smaller than the combined annual rates

of increase of the insured-population and salaries (17.2 or 32.5 percent, based on alternative estimates). According to Thullen, such errors invalidated the conclusions of the report and its mathematical model could not be utilized in the future even if accurate data were provided by the IESS [62].

By the end of 1987, Thullen revised the available information but, unable to produce an actuarial analysis (due to the lack of data), he limited himself to some calculations, observations, and recommendations. He used the accounting balance for the years 1979, 1981, and 1983, but he corrected the data by including the state debt in the "income" column and subtracting it in the "debit" column in order to avoid the irregularity created by state payments of past debt. He then calculated the income of the pension program, expenditure, and balance for the three years as percentages of the total salary declared for contributions. His estimates show that the percentage of income gradually declined while that of expenditures increased, thus turning the percentage of the balance from a surplus to a deficit as follows: 2.75 percent in 1979, 1.62 percent in 1981, and -0.28 percent in 1983 (rough data for 1986 indicated an increase in the deficit percentage). The actuarial interest rate for 1983 was seven percent, but even if it had been 10 percent (as calculated in the Mexican's report), it would have been smaller than the sum of the rates of increase of the insured population and salaries. Therefore, Thullen concluded that the existing percentage contribution would either be of pay-as-you-go and the degree of capitalization zero or, worse, that it would be insufficient to cover expenditures, thus decapitalizing the fund.

Thullen warned that a new actuarial balance was required to solve the problem but, in order to do so, the following data were needed: an accurate number of the active insured (through a census); the age, sex, years of service, and salary of the insured (through a survey); and the number and characteristics of pensioners (through a census). He acknowledged that part of the problem was the addition of benefits without providing the corresponding revenue and recommended that those benefits be modified or cut as follows:

- Eliminate or revise the three additional monthly pensions per year (on top of the regular 12);
- Abolish the assignment of the minimum wage for the special retirement pension (for those who have seniority but not the needed age and are dismissed) which originally had a reduced amount;
- Revise the increase of the survivors' pensions (as a percentage of the pension to which the insured was entitled) from 60 to 100 percent; and

- Eliminate impromptu revalorizations of pensions based on the minimum wage and base the periodic adjustment on Thullen's report of 1978 (not available to me). Thullen also suggested that the retirement age be raised from 55 to 60; that all the insured compensation, rather than part of it, be used as a basis for contributions, and the percentage contribution for pensions be increased (but he declined to give a figure) [61].

According to IESS, in 1987 the revenue of the pension program covered only 86 percent of its expenditures and the remaining 14 percent was taken from the reserves. In 1981/1990, such reserves, in real terms, declined at an annual rate of 4.9 percent, a trend that will lead to the financial collapse of this program in 1995 or 1996. The chief actuary of IESS assured me in 1992 that no further actuarial studies on the pension program had been conducted since 1987 [78]. An outside scholar told me, however, that there was indeed a mathematical-actuarial report for 1985/1988 but that it had not been released [85]. Furthermore, a former IESS chief actuary has published that in 1991 the actuarial deficit of the pension program equalled U.S.$25 billion, twice Ecuador's national debt [46].

According to the current actuary, the institute has "good-quality" data on the insured population from April 1990 onward, and "fair" data on for 1988/1989. Data prior to 1988 is being collected through a survey based on a sample of "good" quality. (Thullen recommended a census for both active insured and pensioners, plus a survey for the characteristics of the insured, but these would take a long time). All data collection and analysis is expected to be completed by the end of 1992 and the actuarial balance of the pension program by April 1993. In the meantime, the actuarial department (which consists of three actuaries and 12 technicians, as well as new computer equipment) is conducting mathematical studies and simulations to improve the models needed to produce the actuarial review. If this plan succeeds, it would be the first actuarial balance in 11 years [78].

8.2.2 Maternal Health Program

This program is on a pay-as-you-go basis, and there is no record of any actuarial analysis being done. It is legally financed by 3.8 percent taken from the employers' contribution to the general program, 1.3 percent by the employers for sickness-maternity paid leave, 1 percent taken from the 1.5-percent employer contribution for occupational risks, and 25 percent of the surplus of the general program as it exceeds the actuarial interest. Discounting the latter, which has not materialized since 1986, the total percentage contribution to this program is 5.8 percent. The IESS estimated, however, that it should have been 8.4 percent in 1988— that is, 2.6 percentage points (or 45 percent) higher [18].

Even worse, maternal health expenditures are underestimated (hence, the premium to balance the program should be even higher), the reason being that they exclude expenditures on physical-plant construction and equipment (financed through "loans" or transfers from other programs), or the amortization plus interest of such loans, or the rent for using IESS facilities. The premium assigned to health care is grossly insufficient because 87 percent of the revenue from the 1.3 percent contribution for paid leave is actually a surplus used for health care. Finally, it has never been ascertained whether the 1 percent contribution from occupational risks is sufficient to cover the cost of treating injured workers under the maternal health program because statistics on the latter do not separate common from work-related sickness/accidents.

In 1980/1990, the cumulative financial deficit of the maternal health program (and the corresponding depletion of IESS reserves) was 53.6 billion sucres (U.S.$62 million at the 1990 rate of exchange). Theoretically, this sum is a loan or temporary transfer and as such is included in the accounting balance as an asset. But, in practice, it is a loss. According to an IESS document, the decapitalization of the institution will worsen in the short-run when the ten hospitals currently under construction become operational, which might be the cause of the seven-year delay in their construction. If the current situation continues, the IESS either will have to stop providing health-care services or its entire reserves will eventually be depleted [8, 19, Exhibit 22].

In 1985, a plan was unveiled to finance the cost of the physical plant and equipment for the maternal health program largely through credits given by Spain (U.S. $7.2 million: 74 percent to be paid by the state and 26 percent by the IESS) and Austria (DM 48.6 million: 62 percent to be paid by the state and 38 percent by IESS) for a total of 14,846 million sucres or U.S.$158 million. An advantage of this arrangement was that it made the state responsible for paying part of the capital expenditures (against the state debt to IESS). Part of the expenditures were still charged to the IESS, however, and increased the maternal health deficit [18]. The 1989 budget projected a deficit of 10.9 million sucres in this program, separating its income/expenditures from the general program and leaving the latter (pensions) with a surplus of three billion sucres [27]. This is only an accounting operation, however, which does not alter the deficit. An actuarial plan released in 1989 projected the start of the actuarial study of this program (based on samples of unit costs) in the "short run" [26]. By May 1992 not only had such studies not begun but an actuarial balance of maternal health appeared unfeasible until the corresponding balance of the pension program was completed, hopefully, in 1993.

The only solution to the deficit is to increase the contribution to maternal health. But in order to calculate such an

increment, it is necessary first to adjust expenditures, including capital costs, and to evaluate contributions from paid leave and occupational risks. Even more important is the need to make a thorough evaluation of costs, and the way to reduce them is by increasing the efficiency of the health-care services [61].

8.2.3 Other Programs

The remaining deficitary program is the military-police. The program has virtually no reserves and has accumulated a financial deficit of 10.6 billion sucres in 1980/1990 [Exhibit 22] which has been subsidized by other programs with a surplus. In 1988 this program almost had to suspend benefit payments because of the failure of the state to pay its contribution. In 1992 the Congress considered a proposal to separate the military-police program from IESS [9]. Financially speaking, this would be a step toward making the state directly responsible for payments to this group (instead of hiding behind IESS). Nevertheless, the heavy and unfair burden of this program will continue and it will be a pervasive model for other powerful groups to follow.

Since 1980, the severance program has produced the largest surplus within IESS and its cumulative reserve in 1990 accounted for 27 percent of total IESS reserves. This surplus was produced in part, by not increasing benefits for a long time. There were increases in 1989 and 1991, however— the latter amounting to 100 percent. An actuarial evaluation of this program based on 1988 data recommended a modified assessment method for a two-year period with a guarantee fund and contributions based on the costs of benefits in the previous year plus demographic factors of the insured group.

Three actuarial projections for the end of 1990 showed surpluses under the following conditions:

1. A premium of 1.4 percent without an increase in benefits;

2. A premium of 2.2 percent, with an annual capitalization rate of 12 percent, and a moderate increase in benefits; and

3. A premium of 2.95 percent, with a an annual capitalization rate of 14 percent, and a higher increase in benefits.

The third projection generated the smallest surplus (0.05 versus 1.6 percent in the first and 0.8 percent in the second) but was the one recommended. These projections were based on increasing salary rates and nominal investment yields that seemed optimistic in terms of recent past performance. Furthermore, the surplus at the end of 1990 was expected to support new benefit increases in 1991 and 1992.

If the unemployment rate increases (as it did), the additional cost would be covered by the guarantee fund (no specific figures were given). If there still is a surplus, it should be used to cover deficits in other IESS programs, but in the form of a loan bearing adequate interest [29]. If this evaluation proves optimistic, future increases of severance benefits may foreclose the possibility that surpluses of this program may be used to cover deficits in other programs, thus accelerating the financial crisis of the IESS.

According to the IESS chief actuary, an actuarial balance of the severance program, conducted in 1991 (and not made available to me), showed an actuarial surplus which allowed the two-fold increase in benefits that year [78]. It should be noted, however, that in real terms the reserves of this program shrunk 7.4 percent in 1974/1990 [Exhibit 23].

The other two programs that generate substantial surpluses (additional insurance and contracted insurance) do not appear to be sound in the medium range because either the state does not honor its obligations (e.g., its contribution to improved pensions for railroad) or the premium is insufficient [19]. According to Thullen, it is not clear whether the funeral aid program will be able to generate a surplus in the future [61]. To the best of my knowledge, no recent actuarial balance has been done on these two programs. Conversely, an actuarial balance was recently completed on the funeral aid program which reportedly supported the significant increase of benefits granted in 1991 [78]. No information is available on the occupational risk program.

The remaining programs lack any actuarial base and either have recorded deficits or appear to have insufficient premiums. The premium for mortgage loan insurance has been insufficient since 1982. The one percent contribution of to the Peasant Insurance program appears insufficient to cover health-care costs because the higher 5.41 percent premium assigned to the maternal health program does not cover its own expenses; hence other IESS programs indirectly subsidize Peasant Insurance. The extension of coverage to agricultural wage earners, self-employed and voluntary insured is similar because of the lower contribution involved in this coverage [19]. Thullen recommended in 1987 that the last three programs be suspended until sound actuarial balances were made [61]. The projected "marginal fund" for the informal sector does not have any substantial source of revenue and should not be put into operation until proper studies are conducted [19].

The above analysis strongly suggests that the dwindling surpluses of a few programs will not be able to continue subsidizing the growing deficit of the maternal health and pension schemes, plus the military-police deficit. In 1992, the IESS chief actuary argued that the increase of one percent in the contribution of Section A, plus the 0.3 percent increase for the maternal health

subsidy, combined with the surpluses of some programs, would be sufficient to cover the deficit created by the three major programs, at least in "the next two years," and despite the substantial increases in benefits (pensions, severance, funeral aid) and in administrative expenditures granted in 1991/1992 [78]. This might well be the case, as most projections noted above coincide in believing that the financial crisis will be unavoidable in 1993/1995. The new administration that takes over in 1992, therefore, will have to act fast to avoid catastrophe.

9.0 RECOMMENDATIONS AND OPTIONS FOR REFORM

The IESS financial crisis has been caused by income collections which have been lower than projected (due to the state debt, *mora*, negative investment yields, insufficient premiums for maternal health, and a decline in real contributions) and actual expenditures which have been higher than projected (due to the liberalization of benefits, extremely high administrative expenses, maturity of the pension program, and increasing costs and inefficiencies in the maternal health program).

A serious evaluation of the financial/actuarial equilibria is not possible due to the protracted preparation of accounting balances (which also suffer from serious flaws), the lack of series on investment, state debt and *mora*, and the need for accurate data on the number of insured/pensioners and their demographic characteristics. The scarce and incomplete IESS data available show that, until 1979, all programs except the military-police program generated a surplus. But in 1980/1990 the maternal health program suffered systematic and increasing deficits, the imbalance in the military-police program worsened, depleting its meager reserves; and the pension program for the first time suffered substantial and increasing deficits. Surpluses generated in severance and other programs in 1980/1990 covered deficits in other programs (a cumulative deficit of almost 70 billion sucres [U.S.$90 million]).

The legal mandate to conduct actuarial balances every three years in the pension fund has not been observed, and the latest two actuarial analyses (in 1982 and 1987) were seriously flawed or useless. In 1987, the former head of the ILO social security division refused to carry out an actuarial review of the pension fund due to lack of data, and an actuarial review conducted that year by foreign experts was discarded as virtually useless. A full actuarial balance of the pension program is planned for April 1993. All available information strongly indicates a grave actuarial disequilibrium in this program.

The current total percentage contribution to the maternal health program is estimated by the IESS to be 31 percent, insufficient to cover its expenditures which are grossly underestimated. The major surplus generated by the severance program should be absorbed in the next few years by projected benefit increases, leaving little or nothing to cover deficits in other programs. The majority of the remaining IESS programs with surpluses lack an actuarial evaluation (except funeral aid) and do not appear to be sound in the medium range.

IESS and my own projections indicate that, if the current situation continues, the institution will face a global financial deficit between 1993 and 1995, assuming that the state continues to pay its current obligations and there are not unreasonable

increases in benefits and compensation of personnel. The use of reserves to cover deficits will lead to the depletion of the IESS fund and force a shift to a pay-as-you-go policy unless drastic measures are immediately taken.

The obvious conclusion of this report is that the social security system of Ecuador, the IESS, must be drastically reformed. There is no other alternative and cosmetic changes will not forestall a crisis. The question is what type of reform is best for Ecuador.

Three alternatives are summarized below:

1. The maintenance of a radically transformed IESS as the fundamental social security institution of the country;

2. The creation of a creating a mixed system combining a reformed IESS with various degrees of private-sector participation; and

3. Full privatization of the system combined with a welfare program.

9.1 CONTINUATION OF THE CURRENT SYSTEM WITH DRASTIC REFORMS

This study includes numerous recommendations to cope with the financial crisis of the IESS. Because the social insurance contribution burden is quite heavy already, it is advisable to emphasize a reduction in expenditures through the following measures:

- Elimination/ reduction of generalized pension benefits such as seniority pensions, three extra monthly pensions a year, payment of minimum wage to the special retirement pension, rights of parents and brothers/sisters to survivor pensions, 100 percent paid to survivor pension;

- Termination of privileged programs available to a few insured groups such as improved pensions, withdrawal of contributions, etc.;

- Standardization of entitlement conditions for all insured groups and increase of the retirement age commensurate with life expectancy and other biometric and economic indicators;

- Suppression of generous health-care benefits such as part of the cost of dental prothesis and contact lenses, and travel and medical treatment abroad;

- Better supply of medicines to IESS facilities to minimize the purchase of such medicines in private pharmacies;

- Standardized and more frugal adjustment of benefits to inflation;

- Drastic cut in administrative expenditures (including reduction of personnel—partly by retirement and partly through indemnification for resignation—and excessive fringe benefits) as well as improvements in administrative efficiency;

- Full integration of the military-police system into IESS (including standardized conditions) or complete separation with the state financing it directly;

- Change in the predominantly curative orientation of health-care with more emphasis placed on preventive and primary health-care;

- Integration (or at least high coordination) of all public health facilities; and

- Priority to repairs and re-equipment of existing facilities over construction of new facilities.

To raise revenue the following steps should be taken:

- The maternal health premiums increased to make this program self-sufficient, including its capital expenditures;
- The needed data produced to estimate the disequilibrium of the pension program and establish the proper contributions;

- The percentage contribution paid by all insured made uniform (based on the previous elimination of privileged benefits);

- Fix the overall state contribution to IESS based on a more realistic fiscal capacity and the past state debt renegotiated under more equitable conditions;

- Control of *mora* and its collection improved and continued fixing of the interest/penalty for *mora* at a level above inflation;

- Real yield of investment increased by drastically changing of the IESS portfolio composition, e.g., by eliminating or further tightening terms of mortgage/personal loans and inducing the Central Bank to pay interest on IESS deposits or otherwise allowing fixed-term deposits in commercial banks with profitable interest;

- The capital market modernized to allow investment in stock, sell unprofitable enterprises, etc.; and

- Registration, monthly payments, and individual accounts to be computerized to reduce evasion and *mora*.

The IESS should give priority to the data needed data to prepare actuarial balances of its individual programs and the integrated actuarial balance of the institution. The implementation of the above recommendations should not wait for the actuarial review (except for those recommendations which would require it, e.g., fixing the new premiums for pensions and maternal health). The actuarial analyses should evaluate the impact of the proposed reforms on the financial/actuarial equilibrium. Once the institution is put on a solid basis, careful consideration should be given to the possibility of extending coverage with various packages of financing/benefits including less costly health-care models such as those of MOH and Peasant Insurance.

9.2 CREATION OF A MIXED SYSTEM: REFORMING IESS IN COMBINATION WITH PRIVATE SECTOR PARTICIPATION

Several countries are currently debating this approach. A common element in all these discussions is the need for structural reform of the old social security system along the lines discussed in the previous section, adjusted to provide basic pensions and health care. The reduced costs of the reform system would help to strengthen the financial structure of the institution, and in those countries with low population coverage, to expand it. In addition, the private sector would participate in various degrees in both pension and health programs [this section is based on 57].

9.2.1 Pensions

The compulsory capitalization pension plan could assume two forms:

1. It could substitute the public pension plan, allowing those currently insured (based on their age) to freely move to the new plan or stay in the old one, and forcing all new entrants to the labor force to join the new plan; and

2. It could become a supplementary pension plan adding an improved pension to the basic pension provided by the public plan which would remain open. Theoretically, the new pension plan could be either publicly or privately administered, but in practice, the latter form is predominant in virtually all proposals. The "substitute" option (Chilean model) will be discussed in the next section where we will describe variants of the "supplementary" alternative.

In Peru a decree enacted in November of 1991 established a mixed pension system (expected to start in July 1992) with the following features:

- The public pension plan (managed by the Peruvian Institute of Social Insurance: IPSS) will remain open, according to a constitution decree that prevents the closing of the IPSS;

- Those currently insured at the IPSS, as well as new entrants into the labor force entitled to coverage, will either stay/join the IPSS or register in private corporations which administer a capitalization pension plan similar to those of Chile;

- In the private plan, the contribution of the employers will be reduced from six to one percent while the contribution of the insured will be increased from three to eight percent (plus additional contributions and commissions);

- It is not clear whether contributions in the public plan will be changed or not; and

- Based on the solidarity principle, if the option is exercised to enter the private scheme, the employer's entire contribution and part of the contribution of the insured will be transferred to the public plan.

Incentives to move to the private plan will include the opportunity to leave the IPSS, which is undergoing a severe crisis, and enter a *potentially* sounder private plan which should pay higher pensions, and a lower contribution charged to the employer (who probably will try to influence his/her employees to move). Incentives to stay in the public plan will probably include lower contributions for the insured and more liberal entitlement conditions. The Peruvian parliament suspended enactment of this decree and it is not now known whether the Peruvian president, under the current stage of emergency, will implement it.

Uruguay has been debating reform for several years. One faction favors application of the Chilean model. Another group —sustained by the Social Security Bank (BPS)— favors retention of the public pension plan under BPS administration with drastically reduced entitlement conditions but based on a policy of pay-as-you-go. The insured at BPS would be allowed to maintain a supplementary pension plan with additional contributions. A 1984 law and 1989 regulations stipulate that such supplementary pension plans (there are a few in operation already) are to be administered by public institutions (including the BPS), private not-for-profit trade unions and other associations (approved by the BPS), and private enterprises (only if the plan is exclusively funded by the

employer). The proposal is being carefully and informally discussed by Uruguay's major political parties in order to develop a consensus before it is officially submitted to Congress.

In Argentina in 1991 the under secretariat of social security prepared a draft proposal which has been modified several times but as of May 1992 had not been submitted to congress. The main features of one version completed in early 1991 included:

1. A National Administration of Social Security which would administer all public systems (made up of 2, 3, 4);

2. An auxiliary pension for the uninsured indigent;

3. The old public plan (for those who have acquired rights) which will gradually disappear;

4. A compulsory reformed public plan, based on pay-as-you-go, which will pay a basic uniform pension;

5. A private compulsory capitalization plan which will pay supplementary pensions (similar to the Chilean model); and

6. A private voluntary plan.

Both salaried and self-employed will be covered. Those below 45 years of age will be covered by the new system, combining public and private plans (Nos. 3, 4, 5); those over 45 will continue in the old system (Nos. 1, 2) but could change to the new plan within a given period.

In Colombia a similar debate has been ongoing since 1991. One position endorses the "substitute" private plan copied from Chile; another supports the "supplementary" option. Reform is complicated in this country because there are more than 1,000 social security institutions and programs. The largest is the Institute of Social Insurance (ISS) which covers employees in the private sector. There are numerous plans in the public sector with divergent conditions for entitlement. Existing proposals support the unification (under ISS) of all pension programs and the standardization of conditions. The unified/standardized public system would continue to operate on a pay-as-you-go basis but with reduced costs and on a sounder financial base. This plan would retain solidarity elements. In addition, there would be a supplementary capitalized pension plan, financed by the insured and the employer.

Two proposals feature a plan administered by Chilean-style private corporations and one proposal features a plan administered by a public agency; there is no agreement on whether the plan should be compulsory or voluntary. Most proposals agree that the reform would result in higher contributions, part of them to

finance the public plan and some the new plan. In May 1992 the reform movement appeared to be bogged down in partisan debate while facing strong resistance in the Ministry of Finance to any increase in contributions.

At least three other countries have supplementary pension plans (SPS) in operation —Ecuador, Guatemala, and Mexico. There are no reform movements afoot in any of these countries, however. In Ecuador current SPS are voluntary, regulated by law, exclusively administered by the IESS through contracts with individuals or groups of insured, and financed by contributions of the insured and the employer. In 1990 there were only three SPSs (for public teachers and communication and printing workers) which offered early retirement and an additional pension above the general pension paid by the IESS.

9.2.2 Health Care

There has been no instances of full privatization of health care in Latin America. The Chilean reform did not attempt full privatization of health care as was the case with pensions. The old public system (under FONASA) has been retained, but the insured has the option of moving out and freely joining an HMO (called ISAPRES). The latter covered one million people —less than one-tenth of the population— at the end of the 1980s. In case of transfer, the contribution of the insured is passed on to the ISAPRE selected. As the private system has grown, the lower-income groups, and some middle-income groups, have remained in the public system, increasingly deprived of the contribution of the higher-income groups. ISAPRES offer divergent health packages which in most cases require an additional payment by the insured.

The cited Peruvian decree of 1991, following the Chilean model, stipulated the creation of a private health system: the insured can stay in the public system (IPSS) or transfer to HMOs (called OSS) which offer different health packages. However, the Peruvian approach adds a solidarity element lacking in the Chilean model: the entire contribution of the employer as well as part of the contribution of the insured is kept at the IPSS. The rest of the contribution of the insured, as well as an additional voluntary contribution, is transferred to the OSS which charges a commission for its services.

In Uruguay one-third of the population is covered by private "medical care collectives" of long standing. The BPS provides health care benefits directly to a small proportion of the insured. The majority of the insured, meanwhile, have contracted with the collectives. Because of the economic crisis of the 1980s and other reasons, many collectives have gone bankrupt while the fees of the solvent collectives have increased, thus making them less affordable.

In the Dominican Republic, the Dominican Institute of Social Insurance (IDSS) covers only four percent of the population. Furthermore, its health services are not of adequate quality. HMOs (*igualas*) are enlisting an increasing number of uninsured persons while but also offering supplementary and improved services to the few insured at IDSS. For a monthly premium, *igualas* provide comprehensive health care to seven percent of the population. Part of this group is covered by the IDSS but does not use its services, which are inadequate. Employers of large- and middle-scale enterprises finance 75 percent of the premium. Micro-enterprises cannot afford the payment, however. Associations of micro-enterprises (willing to enroll members and collect fees) are negotiating with some *igualas* to develop a low-cost package to provide primary health care and related services to potential members.

Two countries which have achieved universal health-care coverage of their populations through public plans are using the private sector to improve the quality of their services. In Costa Rica health care costs have been reduced and the quality of services improved through arrangements between the Costa Rican Social Insurance Fund (CCSS) on the one hand and enterprise physicians, private pharmacies, "mixed medicine," and capitation methods on the other. In Jamaica private doctors contracted to fill public health vacancies now comprise one-fourth of the total number of physicians working at the Ministry of Health. In addition, the ministry's sub-contracting with the private sector for non-medical services (housekeeping, janitorial, portering, catering, and laundry) has reduced costs by one-half. The movement toward hospital privatization has been halted in the 1990s, however.

In Colombia prior to 1991 the private sector enjoyed a modest but growing role in expanding coverage, with the result that one-third of the informal sector was protected by private health insurance. The largest social insurance institute (ISS) also signed agreements with cooperatives and private health services. The quality of the latter is reportedly worse than the ISS, however. The 1991 Constitution and a law enacted in the same year have given the private sector an expanded role in the provision of health care. Various reform proposals in 1991-1992 offer different options:

1. Mandatory affiliation with private insurance, combined with a state subsidy to protect the indigents through public services (this option lacks solidarity among both risks and income groups);

2. Obligation for all employers to buy insurance protection for their workers (a non-viable alternative because the majority of the labor force is not salaried, and among the latter, about half are evaders); and

3. Compulsory social insurance health coverage centralized in ISS, with all contributions being deposited in a common fund, and private participation (particularly contracting hotel services but also some medical services as well) to decentralize and increase the quality of services. The latter would be based on a pool of all public health facilities (social insurance, ministry of health, family allowances, etc.) in order to expand health care to the population.

In 1992, however, the Colombian President said that extensive reform was not possible at that time and asked only for a reform within the ISS.

9.3 FULL PRIVATIZATION

The previous section shows that there are neither existent systems nor proposals for full privatization of health care. Furthermore, most of the proposed reforms of the pension plan recommend a mixed public and private system. Currently, the only "substitute" private pension scheme is operating in Chile while proposals have been made to apply that approach in Uruguay and Colombia. [This section is mostly based on 57].

The compulsory private pension plan that began to operate in Chile in 1981 was based on the following characteristics:

1. All insured were given the option to stay in the old public plan that was closed in 1986, or move to the new private plan; all new entrants to the labor force must join the private plan (in 1991, 90 percent of all insured were in the latter);

2. The new plan is managed by competing private Pension Fund Administrative Corporations (AFPs) which are strictly regulated and supervised by a state agency, the state also providing a series of guarantees to the insured;

3. The AFPs offer coverage for old-age pensions, plus disability and survivor pensions contracted with private insurance companies;

4. The system is financed by the insured alone, the employers paying only for employment injury;

5. The state finances the large deficit of the public plan plus part of the cost of the old-age pensions in the private plan (including a "bond of recognition" paid in one lump sum at the time of retirement and which is based on the indexed value of contributions accrued to the old system, plus minimum pensions for those who do not fulfill all conditions for a regular pension) and the cost of unemployment compensation, family allowances and social assistant pensions; and

6. The contributions of the insured are credited to an individual account; all funds are invested by the AFP and their returns proportionally credited to the account of the insured.

The Chilean pension system has positive and negative features. Advantages include:

- Lower payroll contributions for the insured and no contributions for the employer in the private plan;

- A higher level of disability and survivor pensions than in the public plan;

- Freedom of choice of AFPs and retirement plans;

- The recognition of contributions to the old plan;

- A sounder pension program with state guarantees and high investment yields;

- Faster and simpler processing of pensions;

- A possible beneficial effect on savings; and

- Eventual termination of the troublesome public plan and its unjustified costly privileges.

Disadvantages include:

- The state's huge financial burden (from six to seven percent of GDP in the 1980s) which is going to last (although declining after a peak) for about 25 years (minimum and social assistance pensions will be permanent burdens);

- A good probability that positive high investment yields will not continue in the long run;

- Until the plan matures in 2001, it will not be possible to know if the old-age pension in the private plan will be higher than that in the public plan;

- The insured must pay significant, although declining, commissions to the AFPs while the low-income insured pay proportionally higher commissions than high-income insured;

- Contrary to expectations, the number of AFPs has not grown, competition among them does not seem to work well (administrative costs are much higher than in the old system), and the capital market has not substantially expanded;

- Non-compliance among those registered in the private plan rose from 24 to 47 percent in 1983/1990 and only one-third of

the self-employed are covered (61 percent of them are not active contributors);

- The system lacks solidarity: there is no compensation among good and bad risks, and women receive lower pensions; and

- Most insured lack sufficient knowledge to select the best AFP and insurance company, understand their individual account reports and determine which retirement plan is proper for them.

The application of the Chilean pension model to other countries has been the subject of lively debate. In Uruguay some experts consider that the reform would be more expensive in their country than in Chile because entitlement conditions in Uruguay are more liberal, and active/passive ratios are one-half lower than those of Chile. The public debt resulting from such costs has been estimated to be equal to Uruguay's external debt. In addition, the capital market in Uruguay is considered to be less capable than Chile's to absorb the flow of funds from a national system of capitalization.

Some Colombian experts argue that the combined pension deficit (both of public and private employees' funds) is too large to permit the establishment of a Chilean-style plan. It has been calculated that the state burden (for bonds of recognition, subsidies to cover the old scheme deficit, and the minimum pension) will take 30 percent of public expenditures for about 45 years. Finally, while Chile had close to universal coverage in 1980, Colombia's coverage was about one-fourth of the population in 1991, and the high cost of the private plan will impede expansion of such coverage.

In May 1992, prior to the presidential election, there were no specific proposals in Ecuador to reform either the pension or health-care programs. There was, however, strong support for adapting the Chilean model to both programs. One political leader argued that reform should be instituted in one quick step and that IESS should be dismantled and its staff reduced to about 200 for supervisory functions only, and the rest transferred to the new private pension plans. Another idea was to eliminate the IESS maternal health and the Peasant Insurance programs, integrating the former into the Ministry of Health. Propositions on privatization range from the privatization of all hospitals (both IESS and the ministry) to the maintenance of public sector health programs, but permitting the sub-contracting of the proper services with the private sector and gradually reducing the public sector role. Contributions, according to one view, should be totally transferred to the private plans selected by the insured. The IESS strongly opposed privatization [2, 6, 11, 46, 87].

The Ecuadorian private sector might not be capable of rapidly absorbing the transfer of the insured from public pension and health-care programs; furthermore, the high costs of private plans could preclude the expansion of coverage to lower-income groups. The IESS maintains that its contributions for sickness-maternity are considerably lower than the premiums charged by private insurance companies. In addition, it is argued that coverage in five insurance companies is considerably restricted by general and specific exclusions, and that only two companies own their own health-care facilities [11].

The IESS position is understandable, but some of its views are also shared by the management of one large private insurance company. Its life and medical insurance policies, which comprise 20 percent of all insurance business, are non-profitable and must, therefore, be subsidized by the rest. For that reason, another insurance company increased its premium for hospitalization by 115 percent in 1991/1992.

In the event of a massive transfer of IESS insured, all private insurance companies would have to substantially raise their premiums. Furthermore, the average age of the insured in private companies is 39 years, which is quite high, and a transfer of insured from IESS would probably increase the average even more. The possibility of lowering the average age is nil as most young people are in the informal sector and extremely difficult to cover.

Those currently insured by private companies are in the high and upper-middle income brackets, with very few in the lower-middle brackets, and practically none in the blue-collar income group. The minimum monthly premium that the first cited company currently charges (which does not cover costs) is 20,000 to 22,000 sucres, about one-third of the minimum wage, and is normally paid by the employer. That premium would not be affordable to many of those insured at IESS and certainly not to those in Peasant Insurance.

All insurance companies have 130,000 active workers and 390,000 dependents, for a total of 520,000 covered on life insurance, and only part of them have medical insurance. Many of those insured are already covered by IESS. This group equals 13 percent of the active insured and 30 percent of total insured at IESS. Based on the average income of the insured in the latter groups, the private sector perhaps could cover 16 to 17 percent of the current active insured at IESS, excluding those in Peasant Insurance [82]. These data pinpoint the limitations of the private insurance sector.

Of the three options discussed above, the second (mixed system) appears in principle to be the most viable for Ecuador. But even if a technical consensus is reached on that selection, the task of implementing the reform would be possible only if a majority of Ecuadorians embrace it. As Thullen has warned:

"Reasonable solutions are not only technical in nature but require that politicians, trade union leaders, and employers [I would add the insured and IESS employees] demonstrate the courage to confront reality and assume their own responsibility" [61]. Indeed the entrenched power of unions and political opposition in congress, combined with insufficient government strength in Ecuador, are obstacles for reform. The new government of Ecuador must give first priority to social security reform and build the necessary consensus to make it a reality.

10.0 RESEARCH AND TECHNICAL AGENDA

1. To prepare statistical series on:

   - Population coverage and economic and demographic characteristics of the active insured, dependents and pensioners;

   - Income, expenditures, and financial balance both for IESS as a whole and all of its programs;

   - Total reserves, invested assets, portfolio composition and yields. These data will be essential in making sound decisions as to the type of reform. External aid may be needed to accomplish this task.

2. If the planned actuarial balance of the pension and maternal health programs are not accomplished by the IESS in 1993, immediate external aid must be arranged to perform that task. If the needed data to perform the actuarial review cannot be gathered, surrogate figures based on estimates and projections must be developed, as was done by the UNDP in Argentina in 1990/1991.

3. To develop an integrated accounting system at IESS, bringing together all the key departments. An external experienced consultant will be required for this task and he/she should work closely with IESS personnel, training them in the effective implementation of such a system.

4. To conduct a study of IESS personnel to determine how many of them are really necessary, to establish the need for retraining, and to determine how the potential labor surplus could be phased out through retirement, indemnification, and transfers.

5. To develop a simulation model to estimate the costs of a reformed IESS system (particularly pensions) when tightening current entitlement conditions, e.g., increase of the age of retirement, elimination of seniority pensions, expansion of the years to calculate the salary base, reduction of the percentage of replacement in the calculation of pensions, etc. Exercises of this type have been recently conducted in Argentina, Brazil, and Colombia.

6. To study the availability of health resources (material and human) in Ecuador from all sectors (Ministry of Health, IESS, private) and their degree of utilization and efficiency. To identify the geographical areas/population groups which have the most acute health needs. To estimate the cost of coverage expansion to those areas/groups based on various packages of services/benefits.

7. To gather information on the private insurance sector and its potential capacity to absorb part/all of the transfer of insured from IESS, and the costs of such coverage.

8. To study the Ecuadorian capital market and its potential ability to expand in response to a significant increase in national savings generated by a compulsory pension capitalization plan of either a "substitute" or "supplementary" nature.

9. To conduct a survey among politicians, government officials, congressmen, entrepreneurs, trade unions and the populace at large to determine their knowledge of the current social security system and their stand on various reform options. A similar survey conducted in Argentina in 1991 could serve as a model.

10. Based on the results of the survey, to design a massive education campaign to inform the public on the current social security crisis, the impossibility of continuing with the current system, the urgent need for its reform, the steps that must be taken, and the improvements that such reform would bring.

APPENDIX:

IMPORTANT CHANGES BETWEEN

MAY 1992 - FEBRUARY 1993

Since my visit in May 1992 some important changes have occurred both in the social security system (IESS) and in its legal, economic and financial framework. These changes are succinctly described here, following the structure of my previous report. I do not repeat myself, except when necessary to clarify or reinforce a point; no subparagraph or theme means that there has been no change in that regard.

ORGANIZATION

The recent *Budget Law* was preceded by an intense debate on IESS's autonomy. The Minister of Finance initially maintained that IESS's constitutional autonomy did not preclude its control by government, including its investments. IESS employees objected and brought their activities to a halt. The Ministry reacted by declaring that its intervention would be very limited, but that the IESS would be required to declare its expenditure, income, etc. In a word, the Law would not include the IESS, thereby ratifying its autonomy [1] d (see 2.3.2).

Early in February the *Law of the Armed Forces Social Security Institute* (ISSFA), led by General Jorge Salinas, was passed. The military sector (both in pensions and health) has been separated from the IESS and placed under the ISSFA; this means that this group's systematic deficit will no longer be subsidized by other IESS programs and will have to be confronted by the State. However, the policies continue under the IESS but its Director, Leoncio Andrade, declares that they will not pay benefits to the group unless the State's contributions were paid beforehand [9].

According to the Director of IESS, an *agreement with the Ministry of Public Health* (MSP) has been reached for coordinating or integrating its services, but this requires more research [18] (see 4.1). The Minister of Health, Leonardo Viteri, has announced that the MSP hospitals will be self-managed and charge their users recovery fees for services [1].

COVERAGE OF THE POPULATION

The Director of IESS has announced a project to extend coverage to the insured's dependent family, on a voluntary basis and with an extra contribution [9]. In addition, he states that the extension could include the use of private services [8]. From the extra contribution 30% of pharmacy expenses would be subtracted, since a large proportion of medicines to families are provided informally by the IESS [9]. If this extension does occur, it would be fulfilling one of the main recommendations contained in

my previous report [5]. However, no details on this important project are available (see 4.1).

FINANCING

Legal and Economic Environment

The *Budget Law* exempted the IESS from the obligation imposed on autonomous organizations to deposit their funds in an account with the Central Bank. In 1992, US$130 million from the IESS were deposited in that Bank and generated no interest [5]. But there is a discrepancy on this point. The Director of the IESS declares that they will not deposit any new funds in the Central Bank, but that the Bank has retained the funds already deposited, which are the subject of litigation; the IESS has won in a first instance but must have recourse to a second instance [3,9]. For his part, the President of the Monetary Board, Roberto Baquerizo, maintains that the funds deposited will not be released until the IESS has been thoroughly reformed in order to avoid inefficient investment [12]. Another point of discord is that, according to the IESS, the Monetary Board can no longer limit investment decisions, but the Board thinks that it still has supervisory functions. Although there has been correspondence between both institutions, no agreement has been reached on these two important points.

A *Securities Market Bill* has been prepared by the Central Bank and the Monetary Board and is currently under study by various sectors. Initially, it was established that the IESS funds would be regulated by that Law, but fierce opposition to this idea resulted in a change. Now the project creates a general framework and regulates instruments that could be used by the IESS for investment (e.g. firms' capital and bonds) but it is the IESS that is likely to make the decision [1,9]. Moreover, the bill creates voluntary additional pension funds (APFs) that will be open to insured and uninsured persons [9,15] (we have been promised a copy of the APF bill).

Lastly, there is another draft for the creation of the *Development Unit* (DU), or monetary unit of constant value similar to the Chilean Development Unit. This bill is expected to be put before Congress in a month or two [9]. The DU would help increase the real profits on the IESS's investments, since the capital could be fixed at a value indexed to inflation.

INVESTMENTS

Word-of-mouth information supplied at IESS reveals that the distribution of its investments between "exclusive" and "non-exclusive", which was approximately half and half in 1990-91, continued the same in 1992-93. The "exclusive" investments

directly benefit the insured persons (e.g. in mortgage and unsecured loans, investment in medical facilities) but its money yield averaged one-third of "non-exclusive" investments in 1982-91 and contributed to the capital loss of the real value of the results. In 1985-91 the proportion of "exclusive" investment fell from almost 88% to 47%, a healthy tendency [5]. However, 1992 IESS statistics show that the "exclusive" proportion rose again to 69% of the total investment with a consequent shortfall in returns [2].

IESS statistics show that in 1991 the returns on investment in businesses (totally or partially owned) improved in some cases (e.g. in beer, sugar, Hotel Colón) but deteriorated in others. The overall actual yield seems to have been negative, possibly -34%, but positive (24%) if projects now under way are excluded [2]. No information was available for 1992.

While there are no figures on the IESS's overall actual returns for 1992, the inflation rate in that year was 66% (a substantial increase over the 49% in 1990-91) and the money yield of the total invested in 1990-91 was 14% [5], so that if this result continued in 1992, the rate of actual returns could have been exceedingly negative. But more precise information is needed on this point.

The IESS has a project to create a *Members' Bank* that would channel the increased investment capital since the IESS is no longer obliged to deposit future funds in the Central Bank. It is alleged that this Bank would create new job opportunities and provide additional services to insured persons [3]. However, the Members' Bank (if conceived as a commercial bank with branches offering current and savings accounts, providing loans, etc.) would have to compete with the private banks and would require investment in infrastructure as well as more staff. Latin America's scant experience shows that these banks have not been successful and have contributed to capital loss on social security reserves.

EXPENDITURE: BENEFITS

The real value of the average pension seems to have continued on its downward trend, which began in 1981. Taking 1970=100 as the base year, the average pension adjusted to inflation increased to 174 in 1980 but fell to 84 in 1991 [5]. The inflationary surge in 1992 speeded up the deterioration of the value of real pensions that year, which may have dropped to 60 in relation to the 1970 base year [8]. But more precise information is needed here.

EXPENDITURE ADMINISTRATION:

Personnel

According to its Director, the IESS had 17,200 employees at the end of 1992 [18], a 16% increase over 1990 (the figures for 1991 are contradictory). Although we have no statistics on the number of insured persons at the end of 1992, it is unlikely that the increase in those numbers was commensurate with the increase in employment, so that the proportion of 10 employees per 1000 that existed in 1990 was probably maintained in 1992 and continues today to be one of the highest in the region (if we subtract those insured and employed by the Peasant Social Insurance, the ratio rises to 13:1000) [5].

The Director of the IESS has acknowledged that there is an excess of staff and has accepted the possibility of terminating and relocating employees [3]. The employees under contract (temporary) can be sacked, but the permanent employees present a more difficult situation, although there are plans to offer incentives for voluntary retirement (but this could result in the loss of the most capable) [13]. Thought is also being given to relocating excess personnel in the five IESS hospitals which are expected to go into operation in 1993 [3]; the problem here is that the excess staff will not necessarily be qualified for the work required in the hospitals. Current legislation prevents the recruitment of new staff [13].

The new Budget Law establishes a regime for laying off employees in the public administration: if a post is abolished, the employee in that post can be laid off with an indemnity of 1.5 salaries per year of service. There are plans to introduce a similar formula to encourage employees who have already reached retirement age (55 years) to leave. Lastly, the Draft Law on Modernization envisages also providing incentives for voluntary retirement before the age of 55. According to CONADE's interpretation, the IESS could apply these legal provisions. Furthermore, the corresponding indemnities would be guaranteed by the State (instead of IESS) with assistance from a World Bank fund [11].

ACCOUNTING, COORDINATION AND COLLABORATION WITH THE PRIVATE SECTOR

The IESS has taken a step forward by adopting for 1993 the budget by program recommended by the IMF and in my previous report [13]. As I do not yet have that budget (a copy is to be sent to USAID-Quito), I cannot evaluate that change at the present time. Moreover, the Department of Finance and Economic Management is attempting to bring the accounting up to date. The last financial balance sheet corresponds to 1989. The balance sheet for 1990

should be ready by the end of February 1993, and those for 1991-1992 by the end of May of this year. However, these balance sheets do not include the maternity coverage scheme, which is in deficit, and for which the balance sheet is not expected to be completed until the end of 1993 [13].

Little or no progress has been made with coordination among the IESS departments. During my visit to the IESS this problem was only too evident in the investment area: such coordination is the responsibility of the Financial Economic Department rather than of the Actuarial Mathematic Advisory Service, although clearly they should both work in close liaison [13, 14]. There are as many statistical sources as there are departments in the IESS, and so far there has been no effective coordination. There are reports that a statistical centralization (and normalization?) process has been instituted under the Actuarial Mathematic Advisory Service, and that this body has undertaken the design (expected to be ready by the end of 1993) of a Data Bank [14].

The IESS is now using private clinics and medical services for out-patient care and non-emergency surgery, in an attempt to avoid long waiting periods at the IESS [9]. Mention has already been made (section 2.2) of the consideration also being given to the use of private medical care for extending maternity coverage to family of the insured.

FINANCIAL AND ACTUARIAL BALANCE

As discussed in my previous report, no adequate actuarial balance of the pension scheme has been established since 1982 (although the law requires one every three years, the 1982 balance was criticized), and no actuarial balance of the maternity coverage scheme has been made since well before that. These lacunae notwithstanding, there is no doubt that the pensions post a huge actuarial deficit and that the maternity-coverage deficit has been *on the increase* since 1982 [5].

Expenses in the IESS's final overall budget for 1992 stood at 959.634 million sucres (US$560 million), but the income included 66.282 million in contributions by the State as third party for the military and police scheme, for a total of 118.769 million; in the budget 31.875 million were allocated to the reserve [8]. In the past, the State has not met its obligations and this behavior did not change in 1992, so that there will be a 12% financial deficit and it would not have been possible to allocate resources to the reserve except, perhaps, by taking resources from it or cutting back on other spending. However, this is mere speculation and calls for a study of the accounts.

One of the main causes of the lack of actuarial balance sheets is the dearth of adequate statistics. For instance, the register

of those insured has not been kept up to date and it needs to be "overhauled" from top to bottom, etc. On my visit in May 1992, the Actuarial Mathematic Advisory Service assured me that the task of collecting, cleaning up and analyzing data for the system of contributions would be completed by the end of the year [5]. But on my last visit (nine months later) virtually no progress had been made and 58% of the register was still in need of "cleaning out". The reasons given were as follows: the IESS central computer was down; delay in delivery of the new computer and terminals (recently installed); and breakdown of some of the micros and no repair service for them (IESS's contract with IBM is for servicing the central computer, not the micros). There were also complaints of insufficient staff: the service currently has 11 full-time employees and 38 who work only two hours a day (recruitment restrictions and the unions prevent the hiring of the equivalent of nine full-time employees). It is alleged that the total equivalent of 20 full-time employees is insufficient and that there is a need for an extra 60 hours of keyboard operators, but that only 48 staff/hours had been hired. When I asked whether all the current staff was qualified and worked efficiently, the answer was a categorical "yes". I have my doubts, but it is point that needs evaluation by an actuary.

The actuarial balance of the pension scheme is now programmed for two or three months after completion of the accounts (planned for the end of May), and we are assured that the figures and balance sheet will be accurate. The actuarial balance of the maternity-coverage scheme will take longer, because its accounts will not be completed until the end of 1993, so that it will not be available before 1994. Also, there is no up-to-date information concerning the infant and juvenile population (the civil register is being used), which will make it difficult to calculate the extension of coverage to that group. When I asked whether there was a faster method (or "shortcut") for estimating the percentage of contribution that would be needed for this program's self-financing, I was told that it could only be roughly estimated, on the basis of projections of a study conducted as many as ten years ago [14].

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76. Cruz, Hugo and Rosita Loaiza, Departamento de Computación, IESS (May 6).

77. Chiriboga, Leonardo, Jefe de Planificación Global y Sectorial del Consejo Técnico Asesor del IESS (May 5).

78. Díaz, Raúl, Departamento de Inversiones, IESS (May 7, 8).

79. Lalama Hidalgo, Laura, Directora de Asesoría Matemático Actuarial, IESS (May 6).

80. Landívar Pazmino, Bolívar, Director de Inversiones, IESS (May 5).

81. Padilla, Eduardo, Director de Recursos Humanos, IESS (May 6).

82. Paz, Hugo, Gerente Financiero, Seguros Equinoccial (May 7).

83. Sosa Jaramillo, Paul, Jefe Dirección Nacional Económico-Financiera, IESS (May 5).

84. Terán Terán, Edgar, Presidente Cámara de Minería (May 6).

85. Torres Rodríguez, Luis, Abogado y Experto en Seguridad Social (May 6).

86. Viteri Llanga, Joaquín, Director General IESS (May 4).

87. Vivanco, Efraín, Jefe del Departamento de Investigación Global y Estadística, IESS (May 6).